

PRELIMINARY REPORT OF 060505

last update on Fri May 5 16:34:19 GMT 2006

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-05-04 00:00:00 to 2006-05-05 16:34:19

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	65	5	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	37	65	5	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	65	5	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	65	5	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	63	21	19	70
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	63	21	19	70
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	63	21	19	70
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	63	21	19	70

2.3 - Browse Visual Inspection

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20060503 043733
H	20060504 040556

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.975429	0.011686	0.013218
7	P1	-3.049138	0.011324	-0.042077
11	P1	-4.085423	0.016052	-0.041415
15	P1	-6.099155	0.012816	-0.031415
19	P1	-3.310237	0.007388	0.026987
22	P1	-4.516226	0.011345	-0.044972
26	P1	-4.052119	0.019820	0.122446
30	P1	-5.736806	0.022059	0.007456
3	P1	-16.703293	0.311851	0.131464
7	P1	-16.937408	0.147548	-0.167094
11	P1	-16.695024	0.326394	-0.429481
15	P1	-13.090424	0.130061	-0.188627
19	P1	-14.121699	0.048622	-0.231926
22	P1	-16.007524	0.485189	-0.400068
26	P1	-15.492825	0.266265	0.502693
30	P1	-16.741854	0.298456	-0.442155

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.300859	0.086555	0.068849
7	P2	-22.208752	0.101083	0.100708
11	P2	-16.055351	0.111457	0.177373
15	P2	-7.164544	0.097567	-0.007375
19	P2	-9.149119	0.090297	-0.029698
22	P2	-18.041443	0.089286	-0.117183
26	P2	-16.297760	0.094892	-0.093557
30	P2	-19.608810	0.088160	0.002811

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.190112	0.004631	-0.001696
7	P3	-8.190112	0.004631	-0.001696
11	P3	-8.190112	0.004631	-0.001696
15	P3	-8.190112	0.004631	-0.001696
19	P3	-8.190112	0.004631	-0.001696
22	P3	-8.190112	0.004631	-0.001696
26	P3	-8.190138	0.004633	-0.001721
30	P3	-8.190138	0.004633	-0.001721

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.748484	0.029381	0.009501
7	P1	-2.674232	0.119484	0.089643
11	P1	-2.888868	0.035538	0.075141
15	P1	-3.520537	0.031869	0.057986
19	P1	-3.381924	0.013349	-0.011278
22	P1	-5.128547	0.023327	0.074439
26	P1	-5.813721	0.025068	-0.036227
30	P1	-5.177550	0.049178	0.001906
3	P1	-11.591478	0.114228	-0.021601
7	P1	-9.977554	0.179732	0.031331
11	P1	-10.236118	0.088790	0.103438
15	P1	-10.704858	0.136569	0.151466
19	P1	-15.443771	0.089710	-0.082168
22	P1	-20.631283	1.269138	-0.519270
26	P1	-16.370506	0.410658	-0.228743
30	P1	-18.273603	0.491410	0.361939

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.966158	0.071515	0.069835
7	P2	-22.508139	0.191058	-0.084790
11	P2	-11.194202	0.052124	-0.009417
15	P2	-4.861995	0.043050	-0.066701
19	P2	-6.857382	0.050989	-0.041125
22	P2	-8.152217	0.056877	-0.059156
26	P2	-24.039793	0.138807	-0.090636
30	P2	-22.049358	0.093938	-0.003455

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024391	0.003727	-0.004888
7	P3	-8.024277	0.003747	-0.004716
11	P3	-8.024497	0.003712	-0.004137
15	P3	-8.024336	0.003735	-0.004659
19	P3	-8.024533	0.003737	-0.004533
22	P3	-8.024491	0.003736	-0.004455
26	P3	-8.024394	0.003726	-0.003825
30	P3	-8.024401	0.003737	-0.004582

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000550892
	stdev	1.81084e-07
MEAN Q	mean	0.000520651
	stdev	2.23963e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136664
	stdev	0.00116228
STDEV Q	mean	0.137023
	stdev	0.00117986



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006050[345]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060505_004234_000001742047_00245_21842_4113.N1	1	0
ASA_WSM_1PNPDE20060503_183927_000002262047_00228_21825_7761.N1	0	11
ASA_WSM_1PNPDE20060504_180901_000000862047_00242_21839_7952.N1	0	31
ASA_WSM_1PNPDE20060504_230834_000001222047_00245_21842_8010.N1	0	31







7 - Doppler Analysis

Preliminary report. The data is not yet controlled



7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

Descending


7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)


Ascending

<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

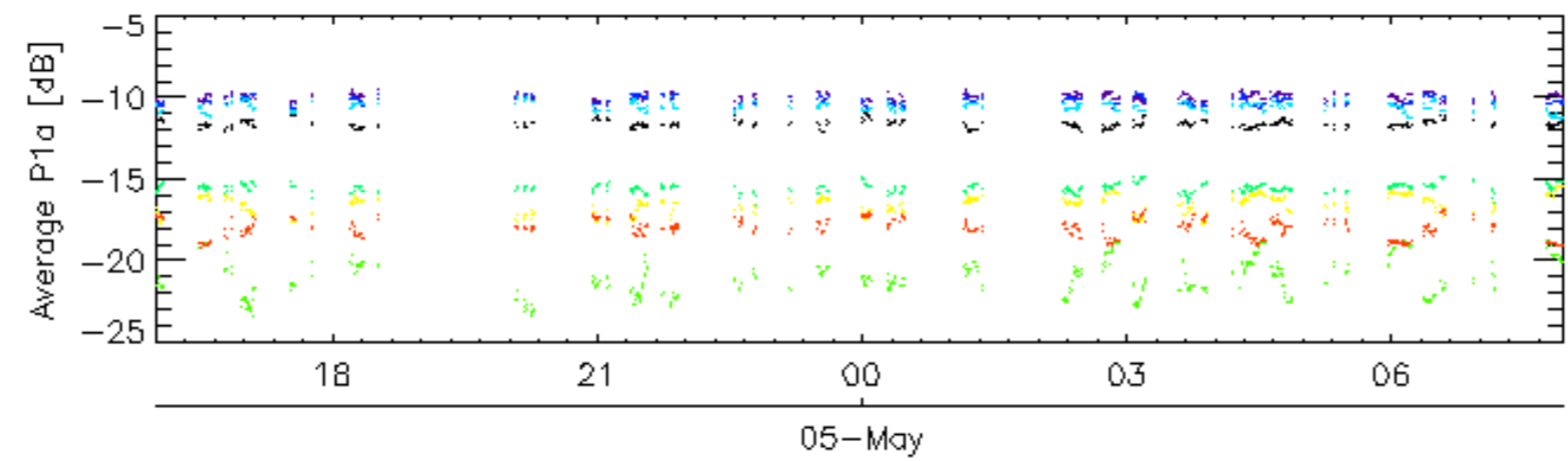
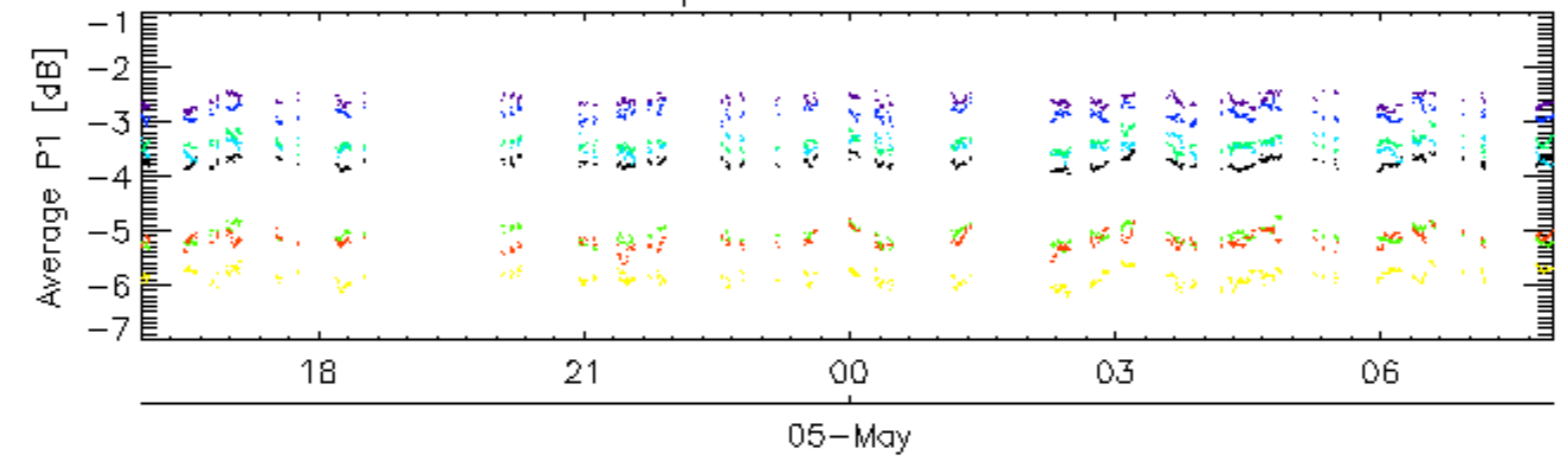
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

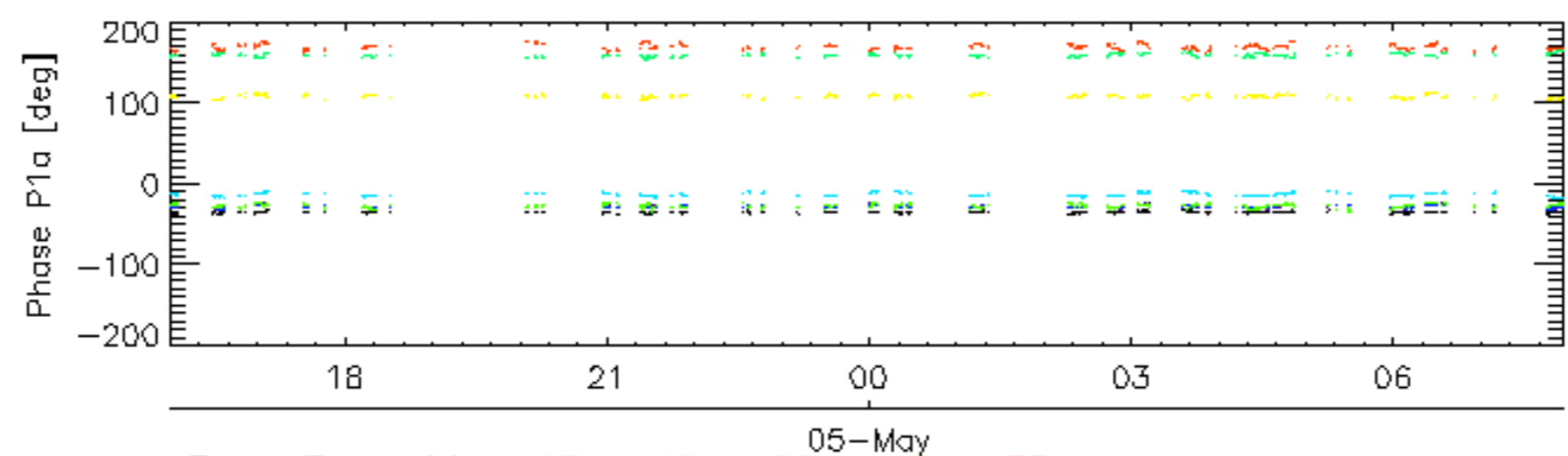
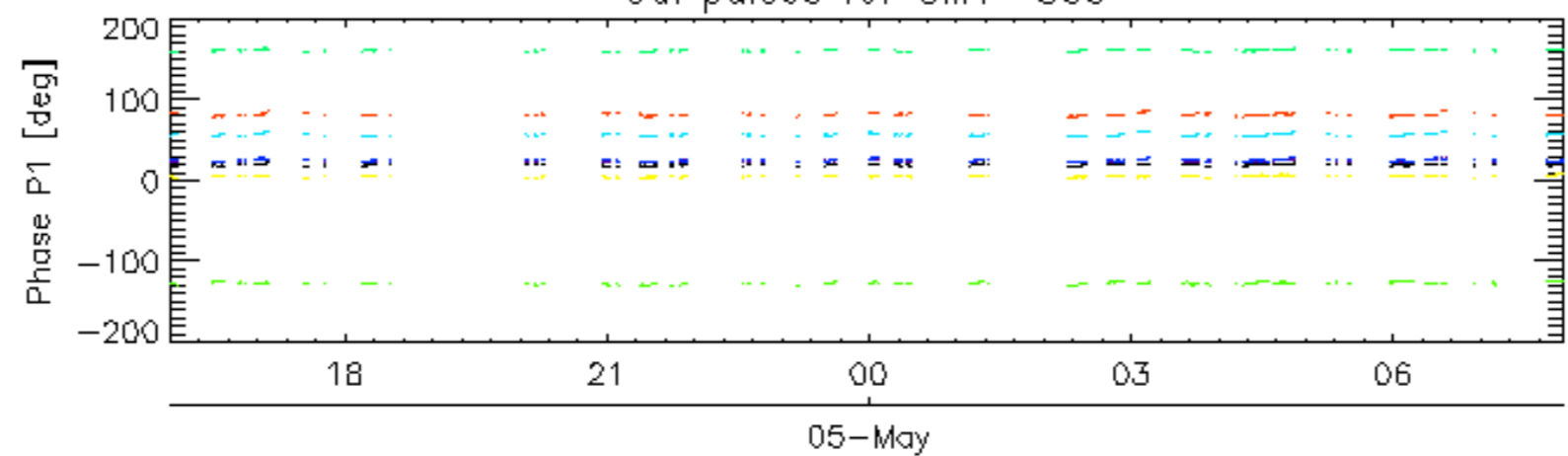
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

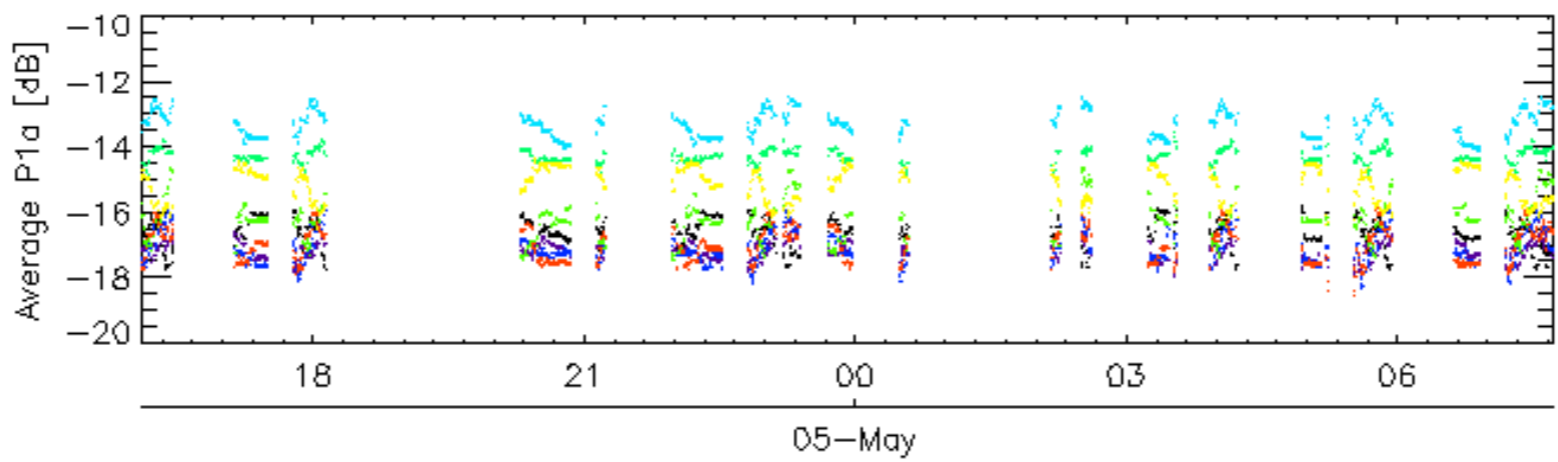
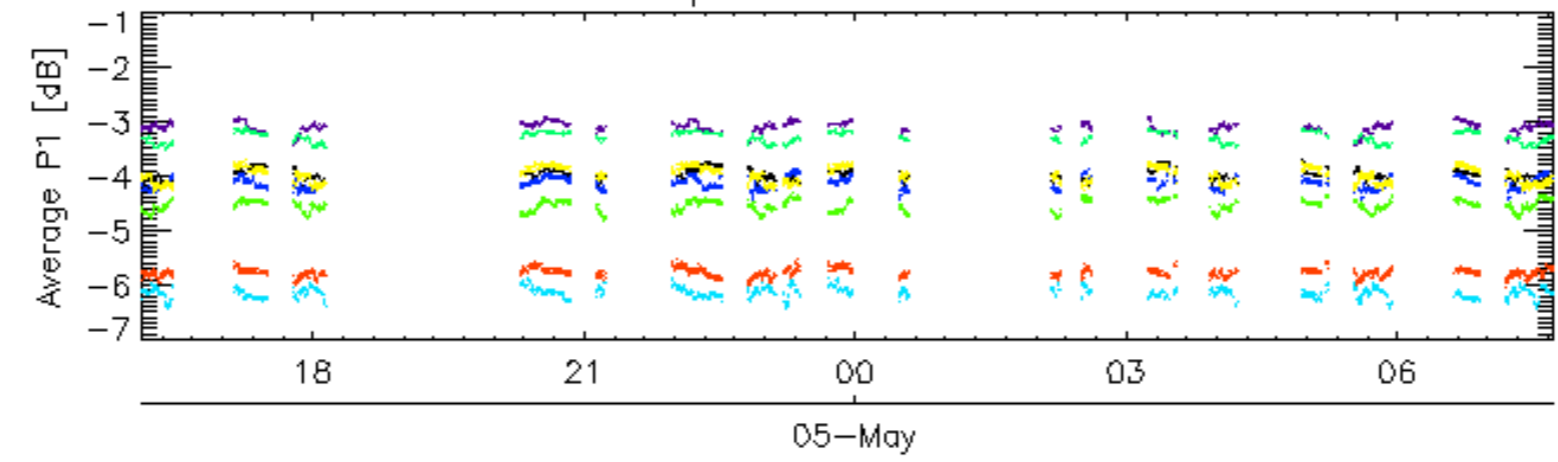


Cal pulses for GM1 SS3

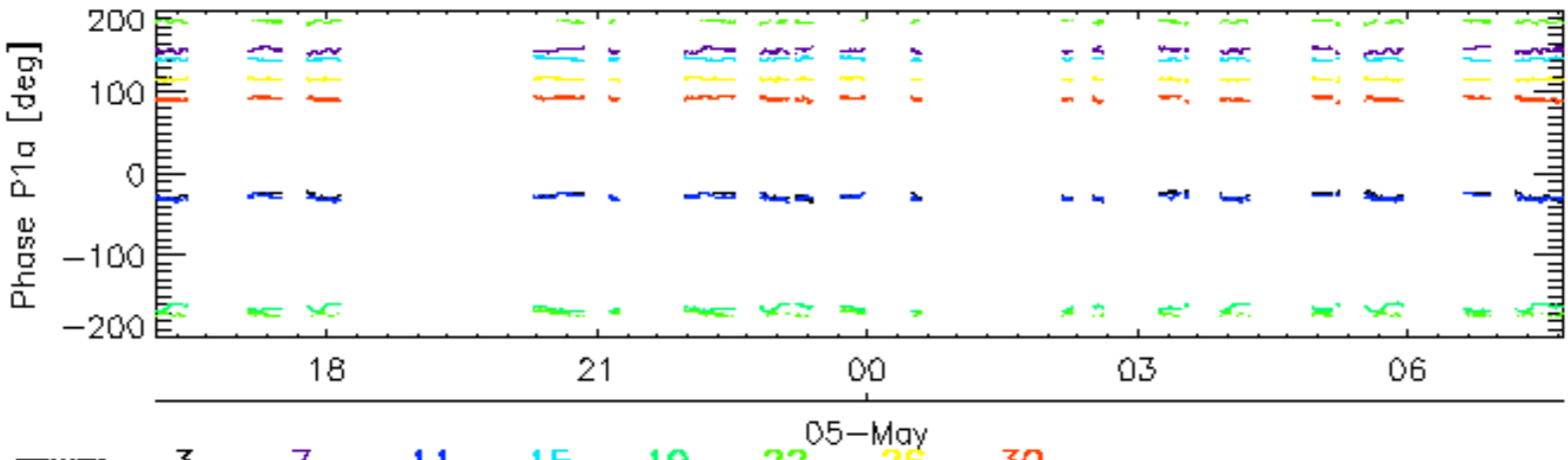
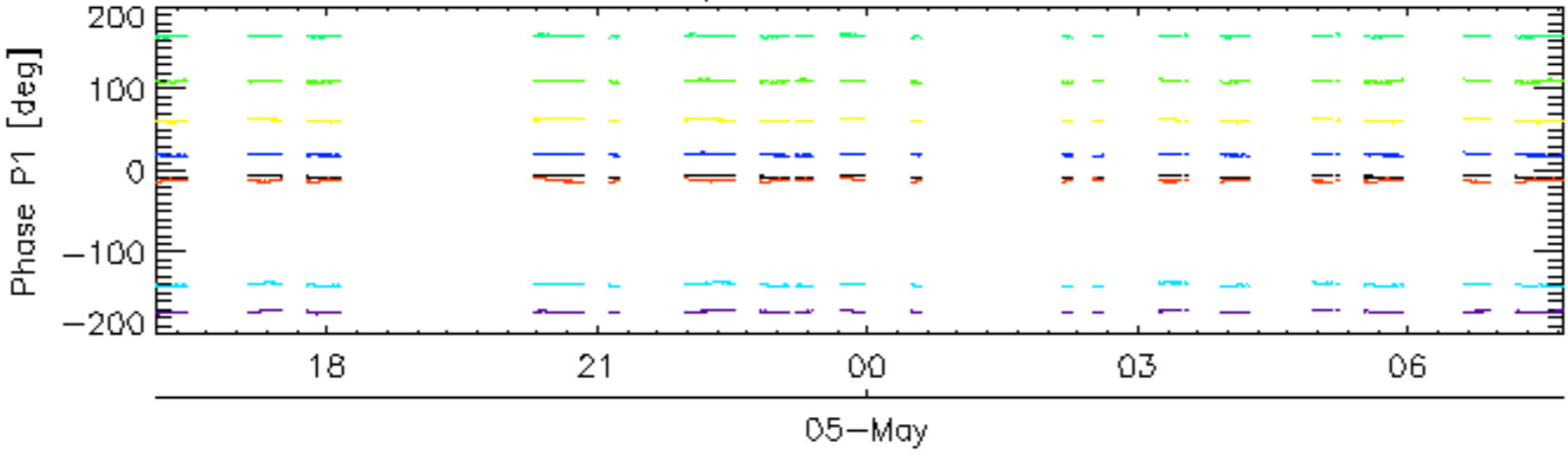


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

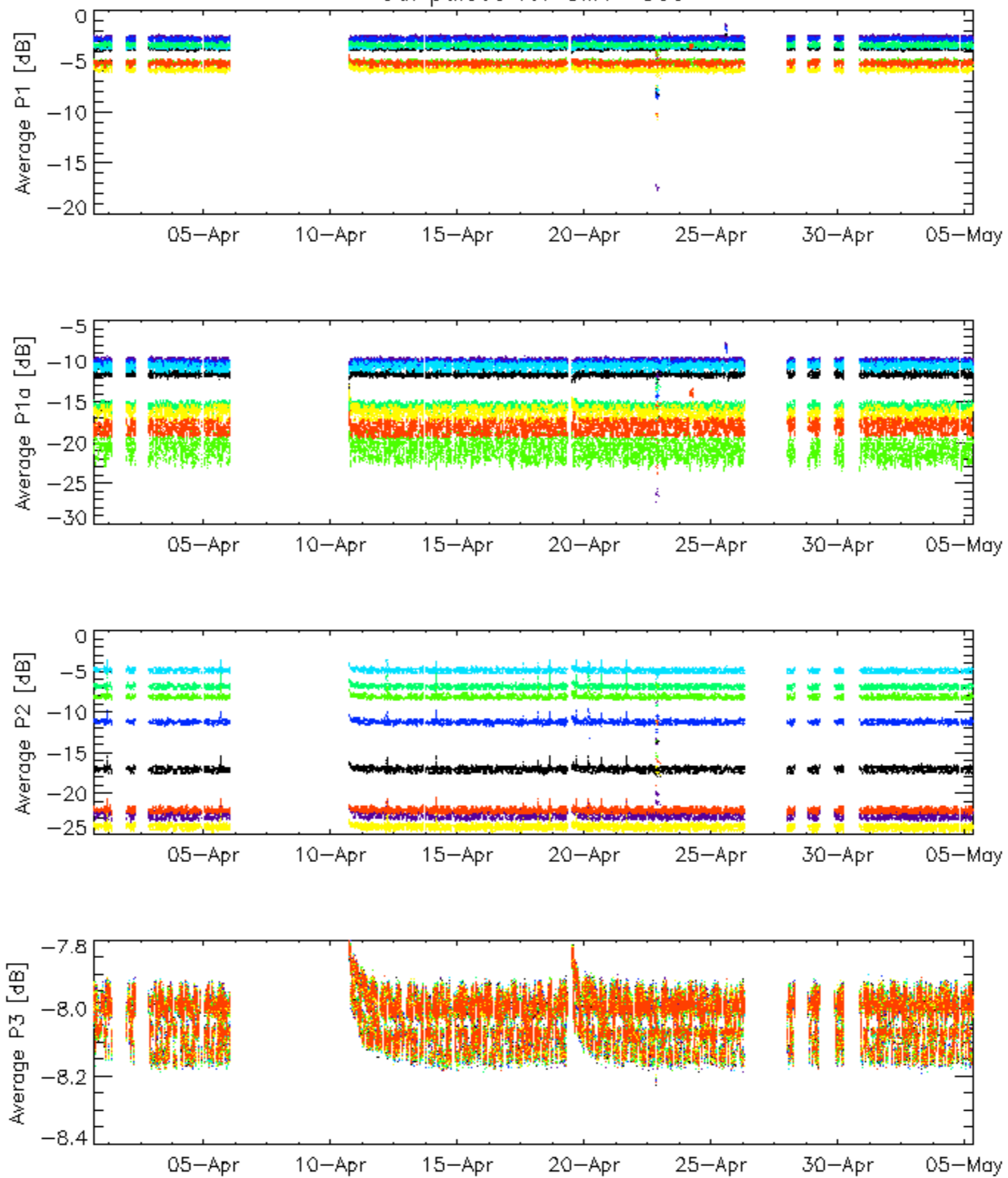


Cal pulses for WVS IS2



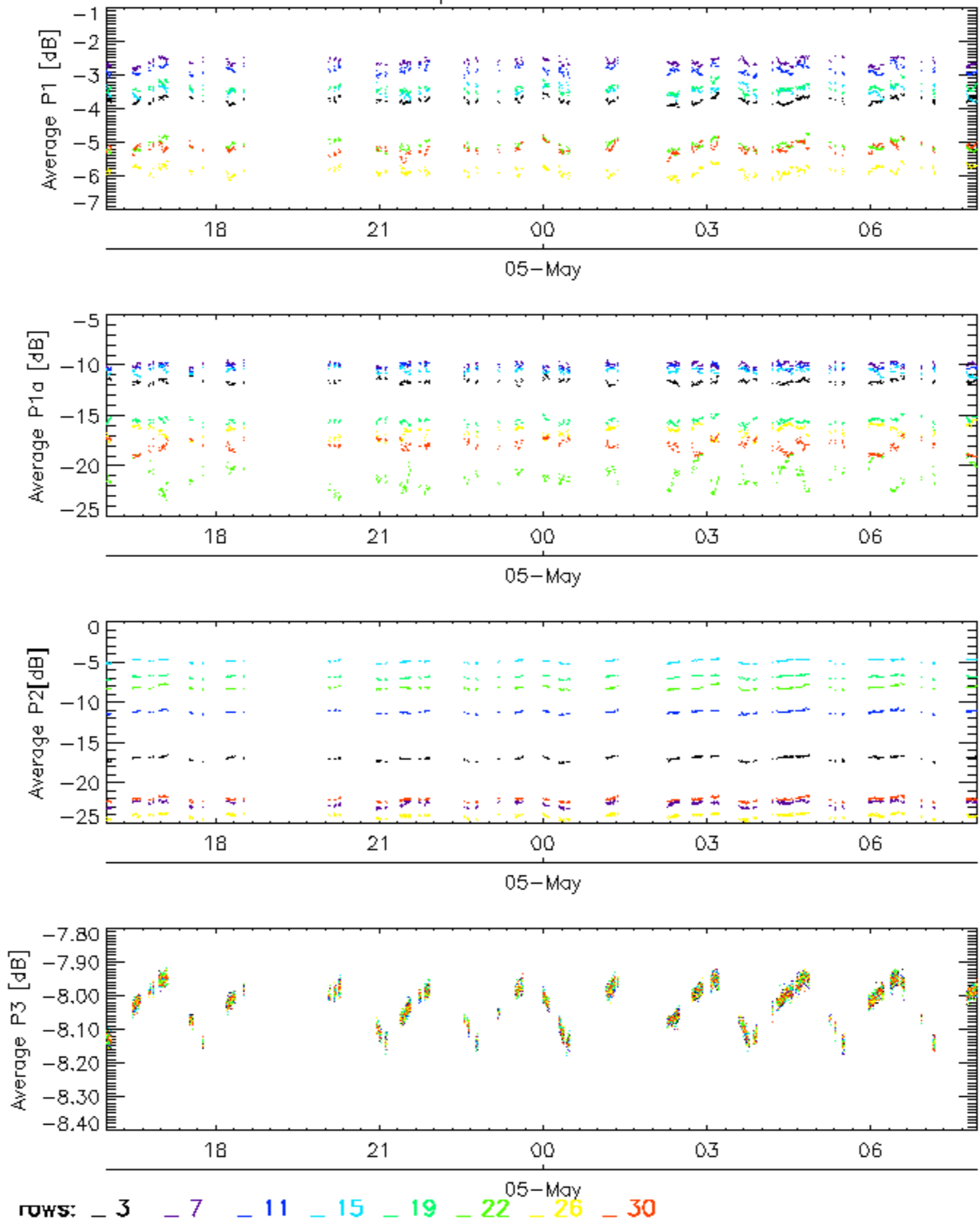
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

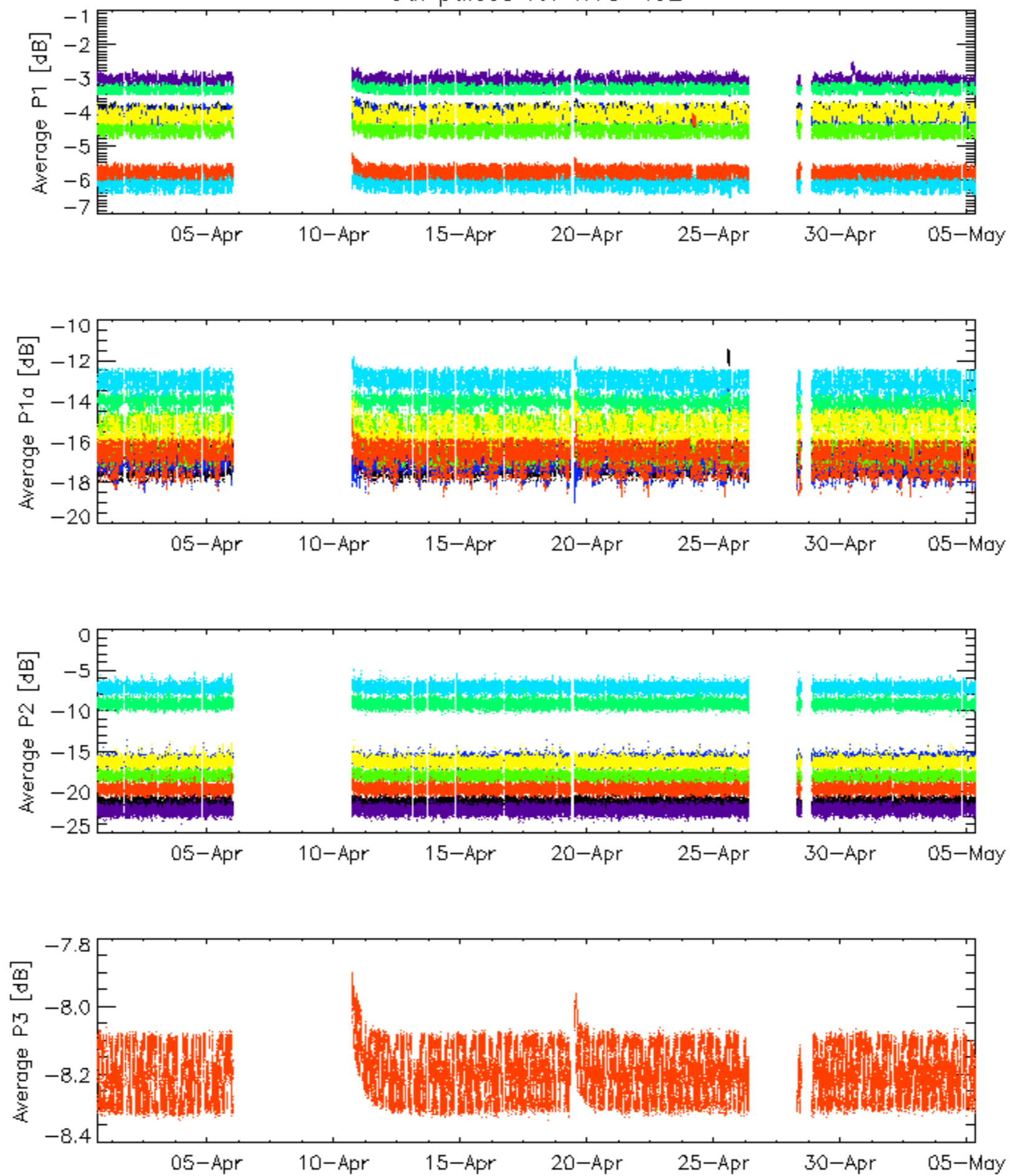


rows: [_ 3](#) [_ 7](#) [_ 11](#) [_ 15](#) [_ 19](#) [_ 22](#) [_ 26](#) [_ 30](#)

Cal pulses for GM1 SS3

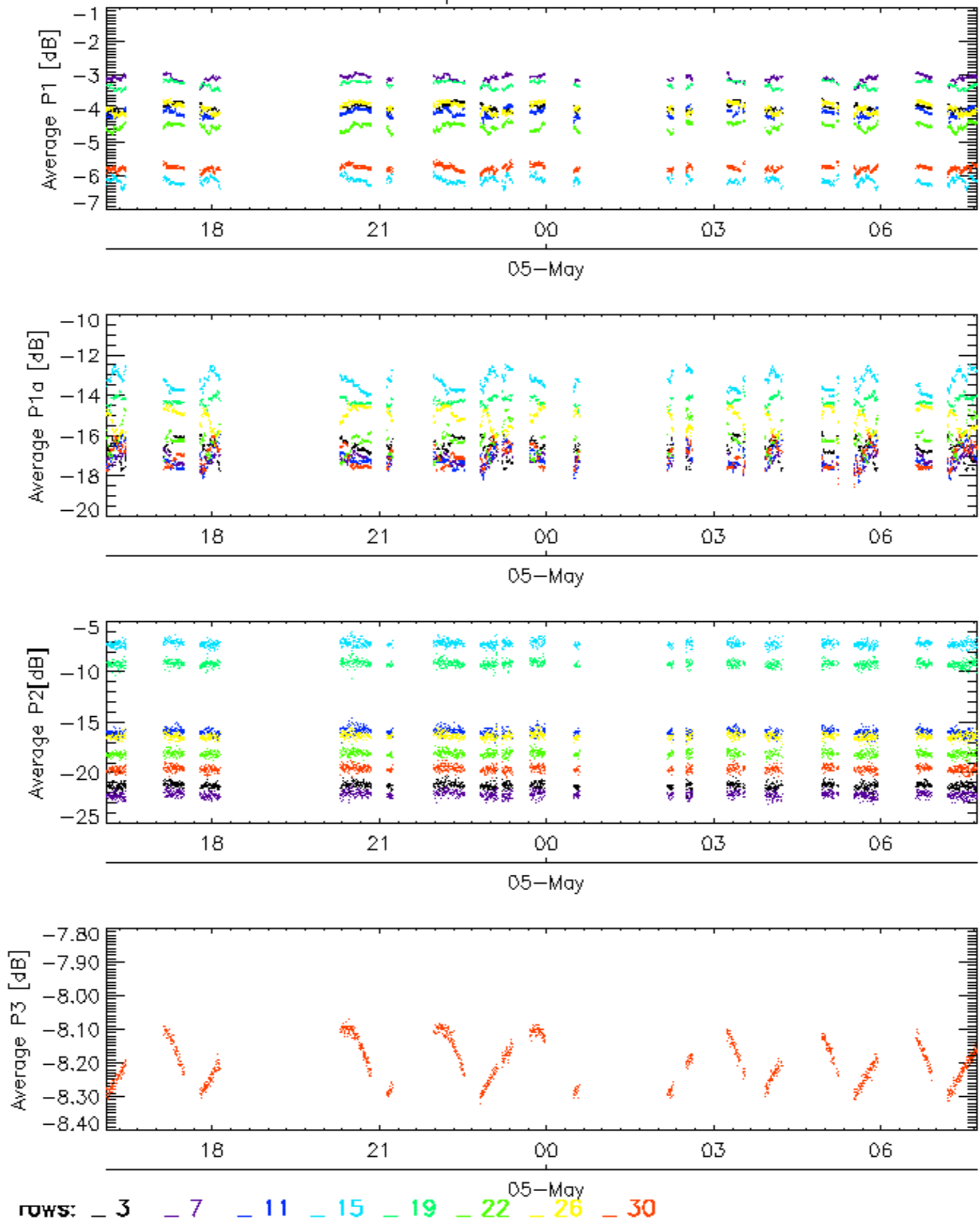


Cal pulses for WVS IS2

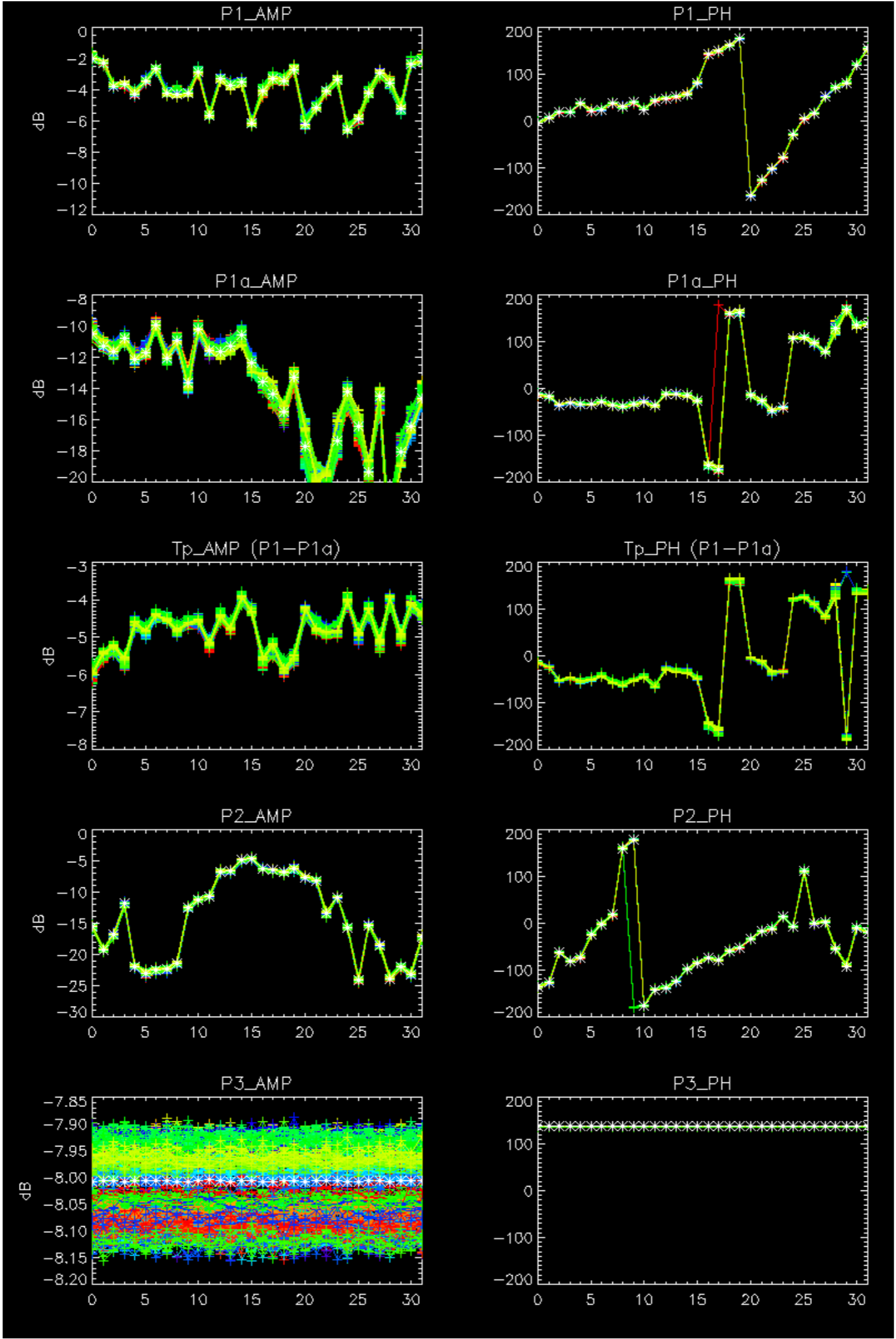


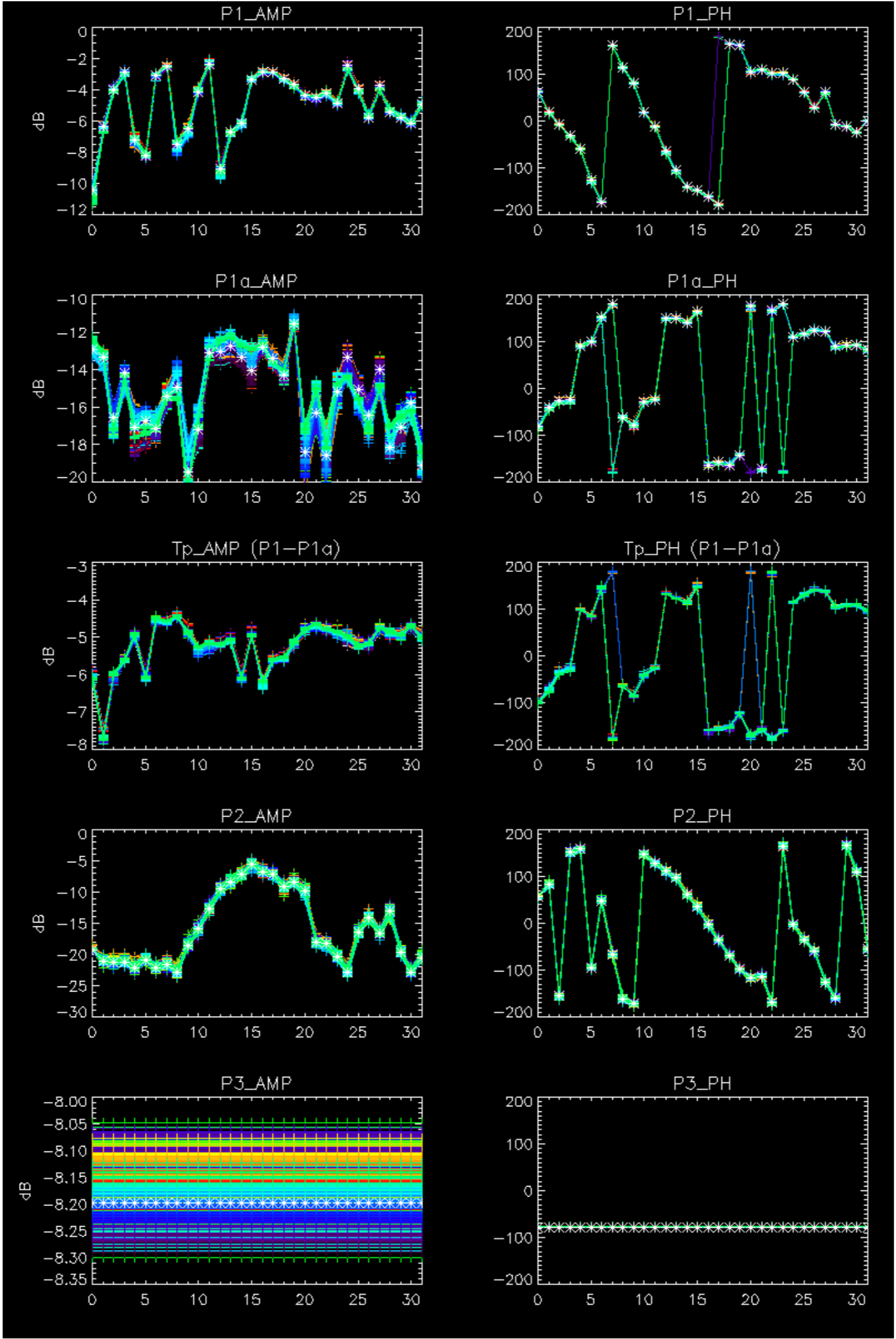
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



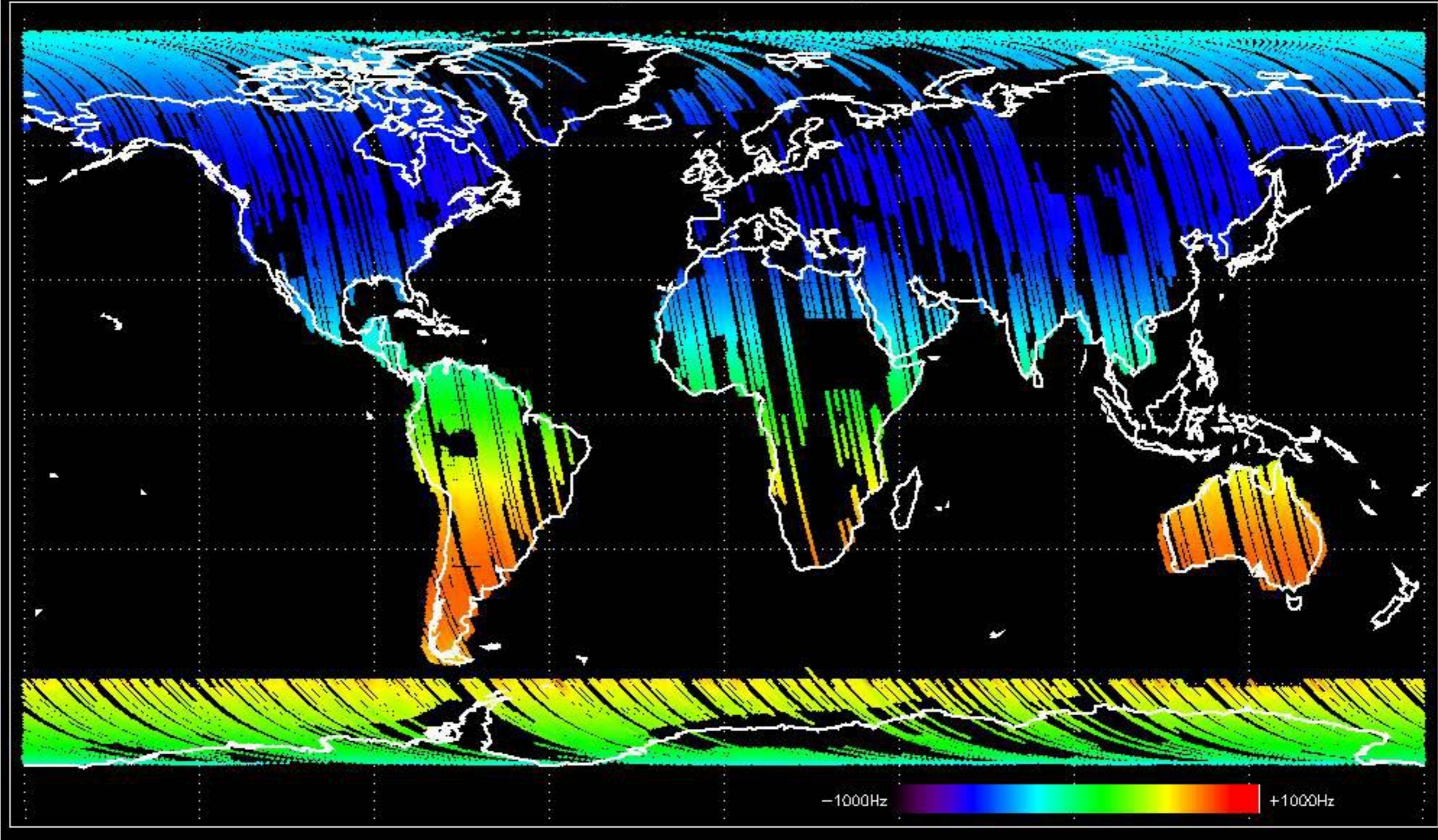
No anomalies observed.



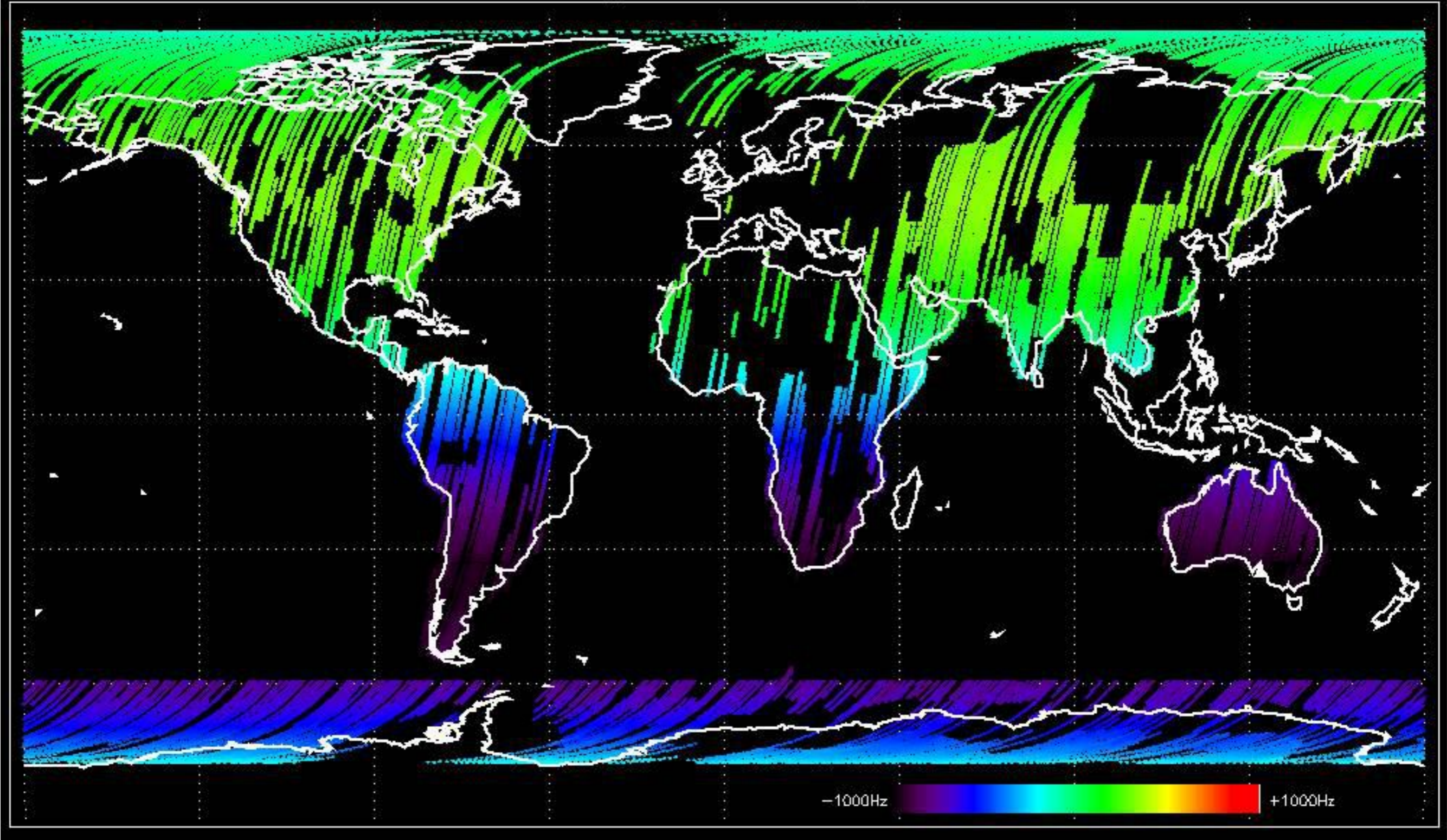


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

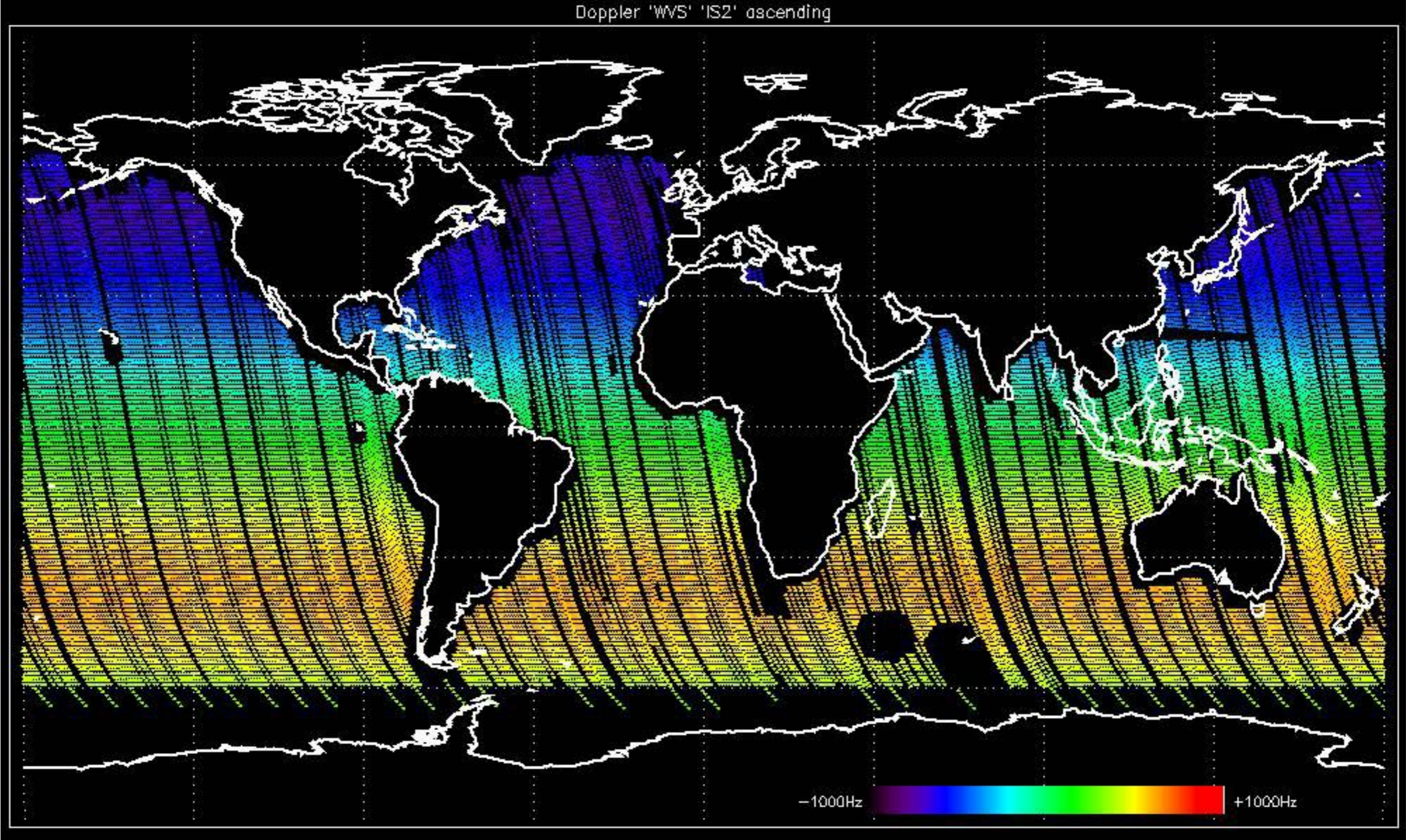
Doppler 'GM1' 'SS1' ascending



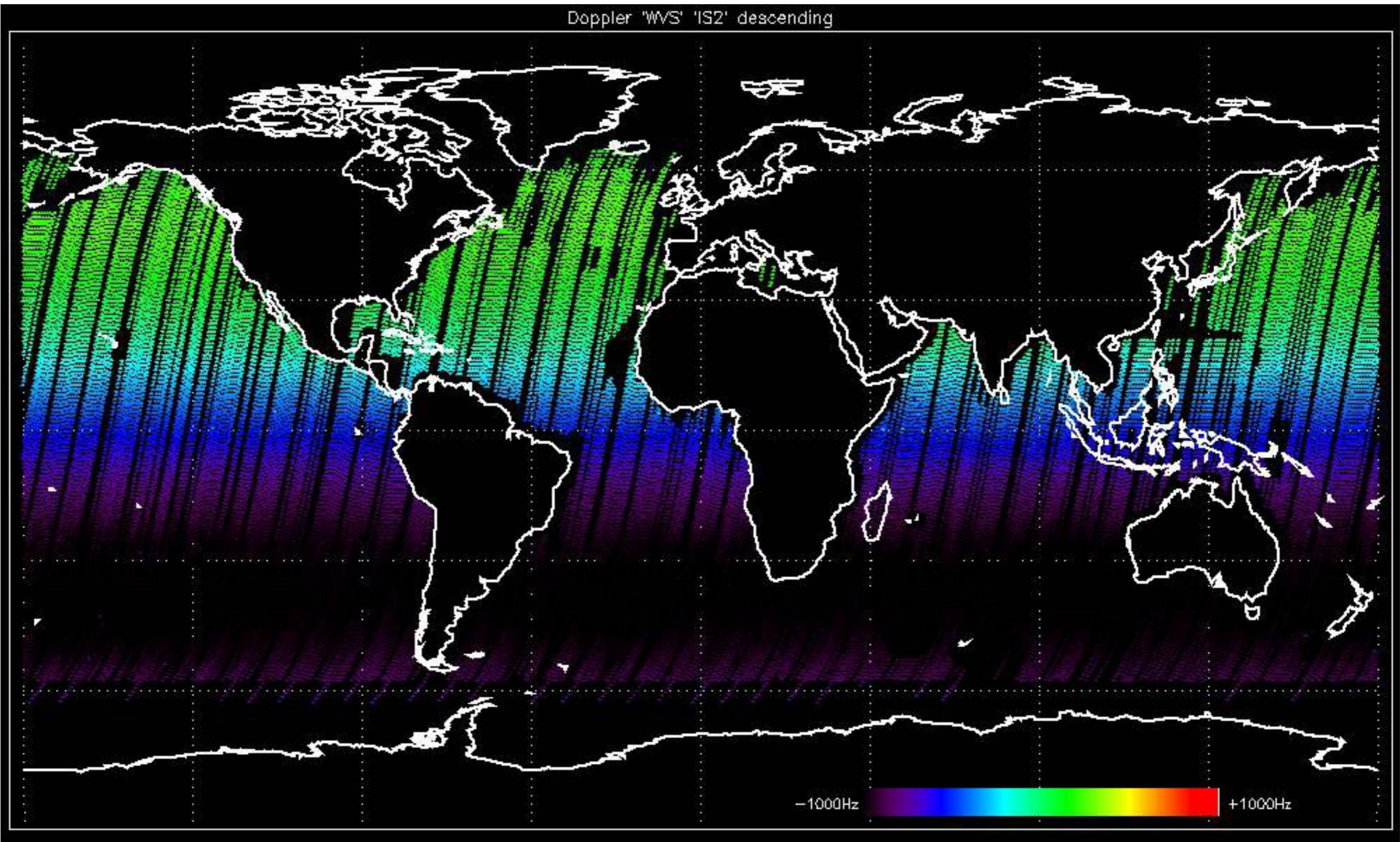
Doppler 'GM1' 'SS1' descending



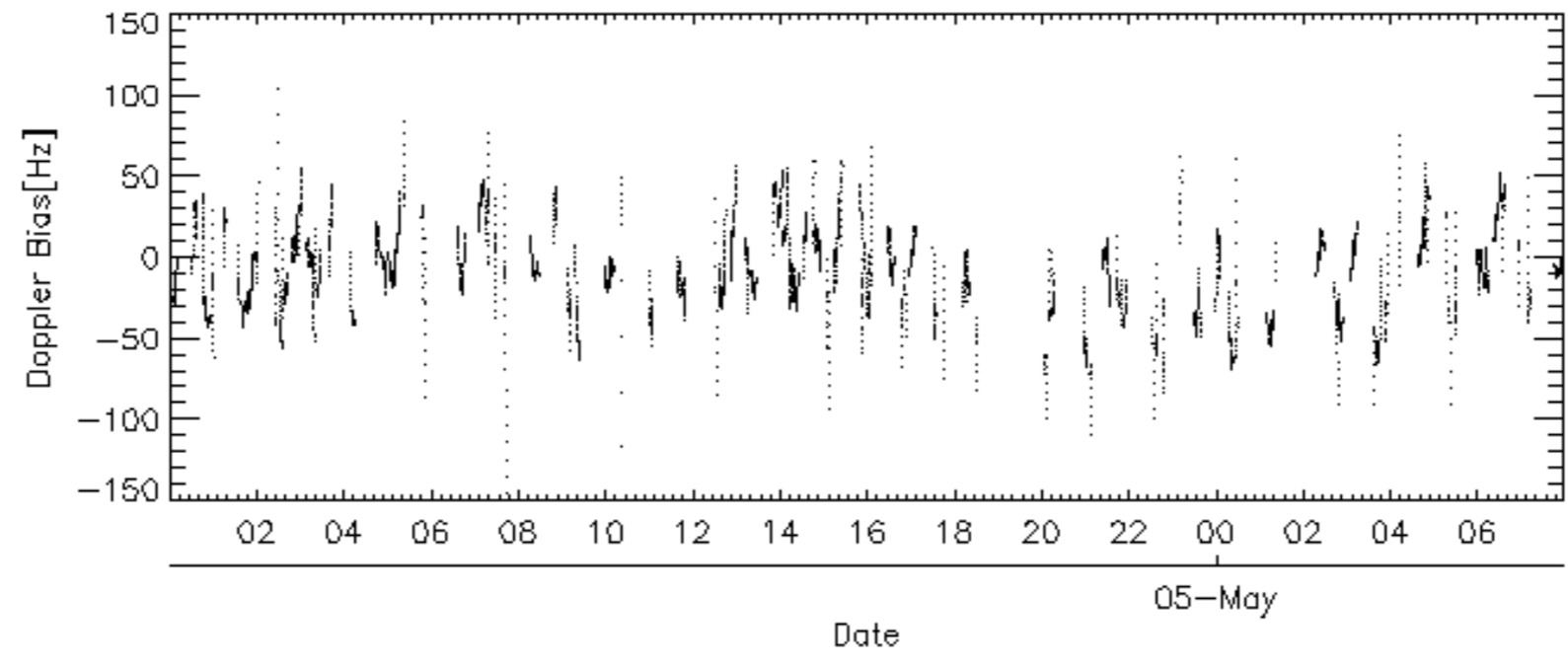
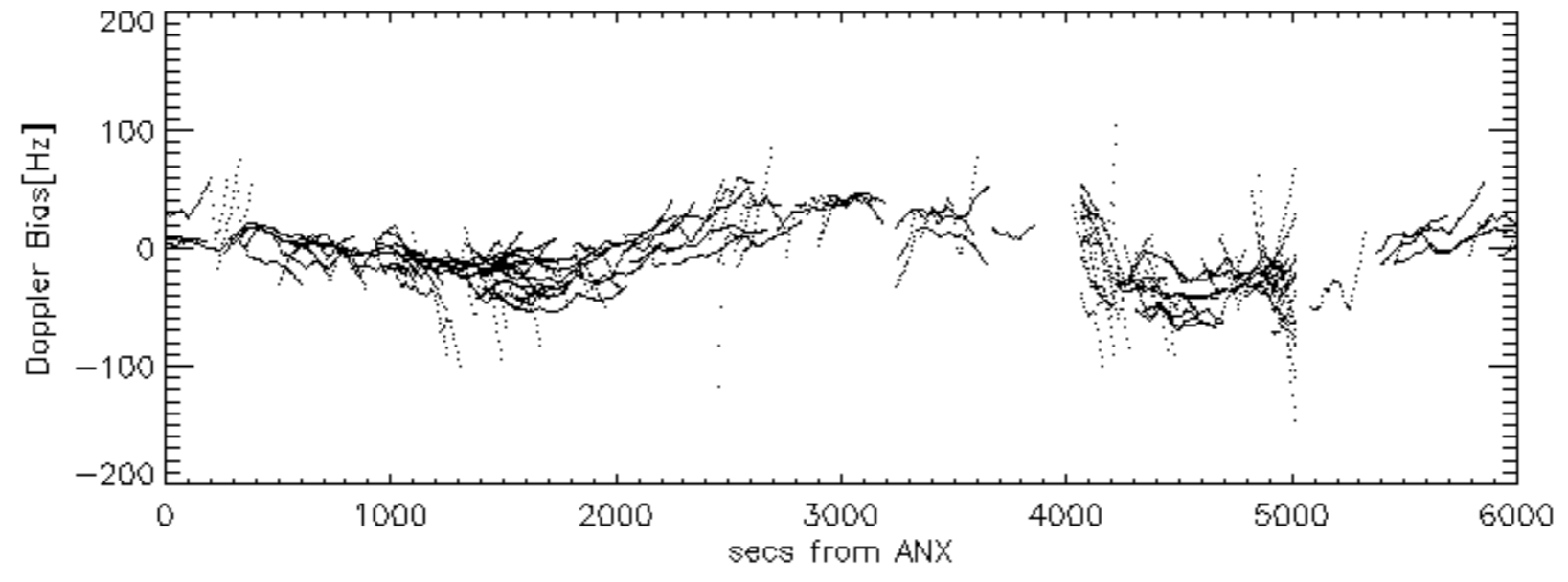
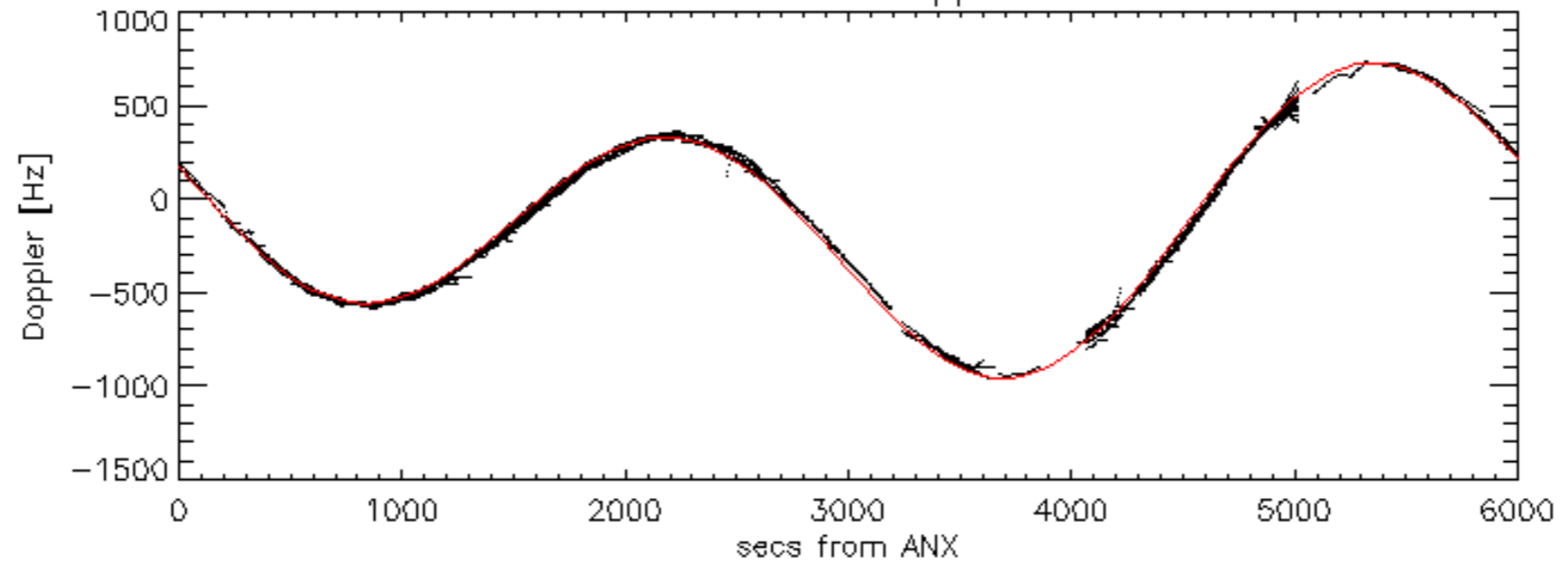
Doppler 'WVS' 'IS2' ascending

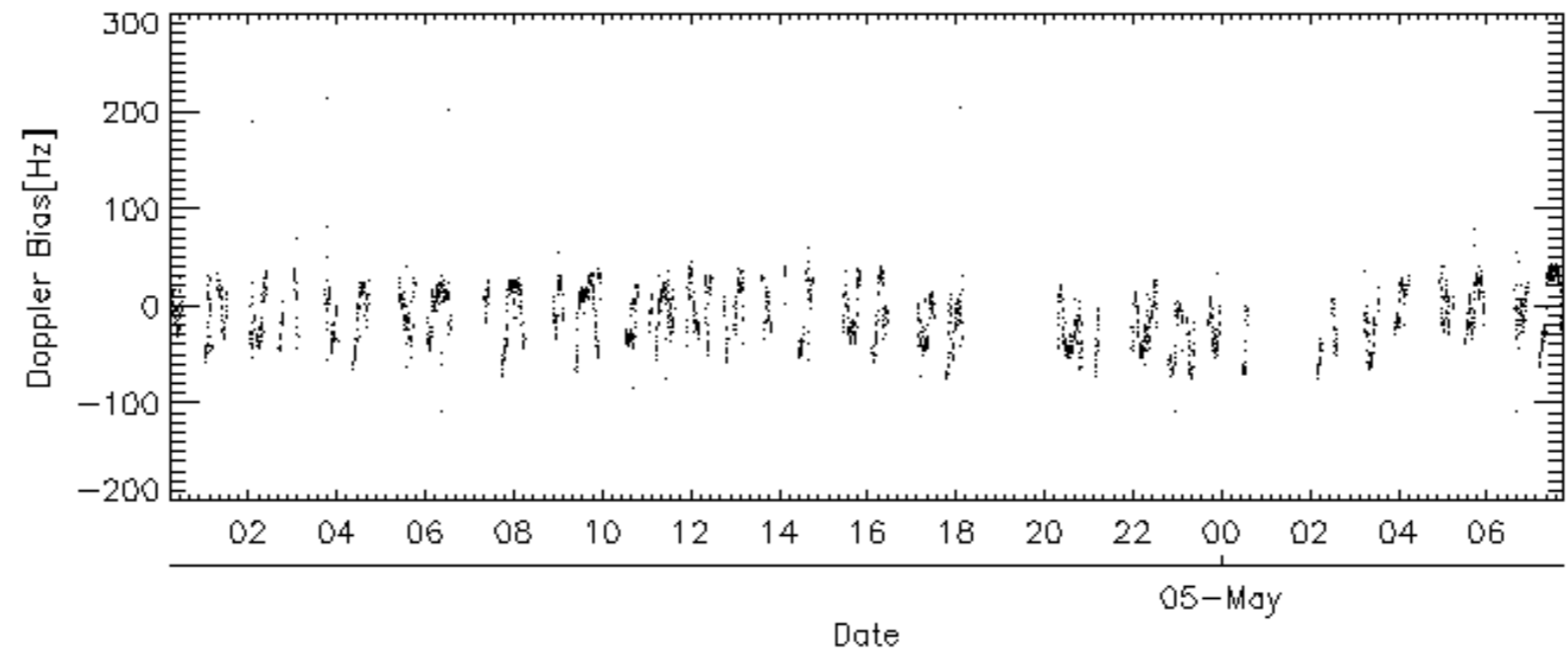
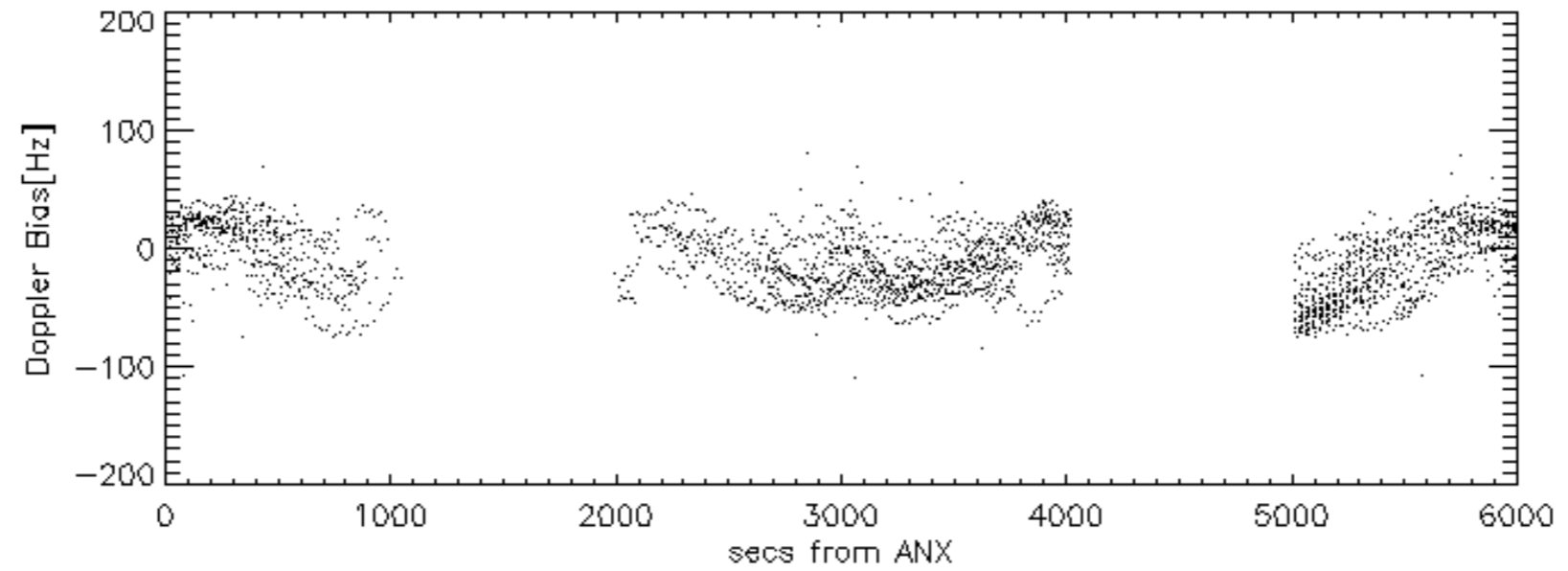
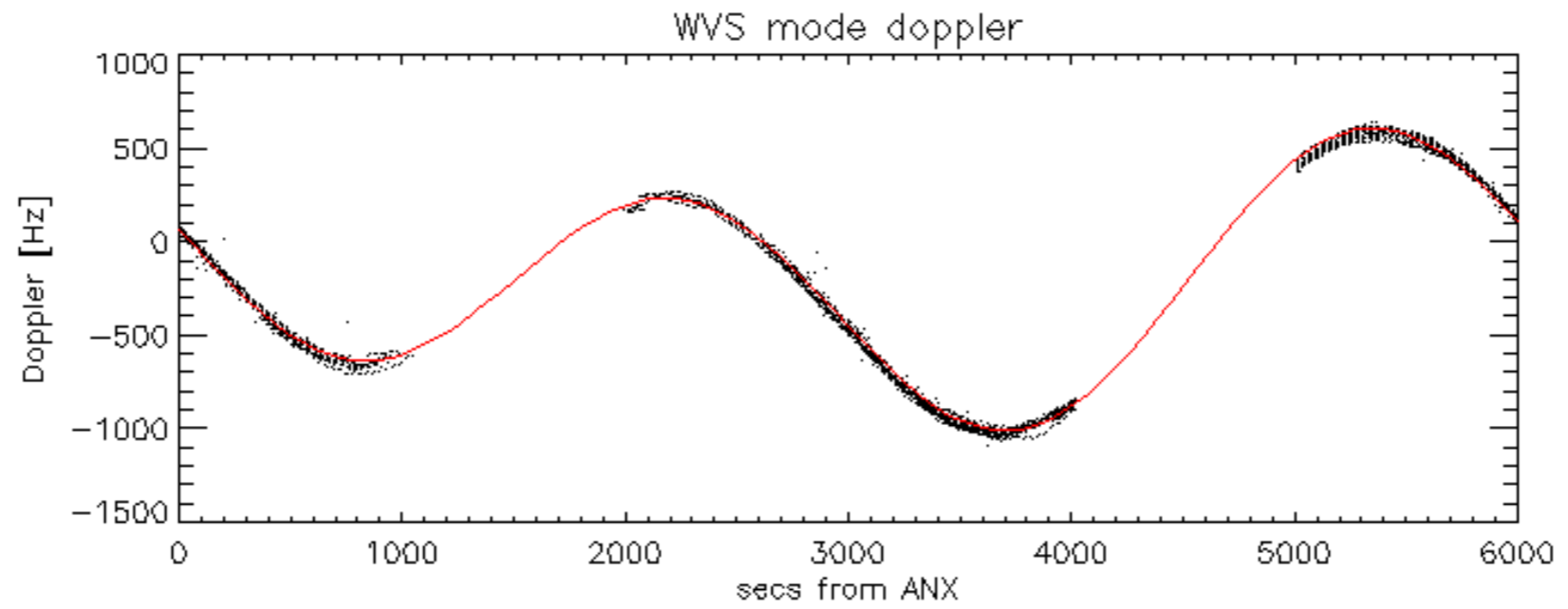


Doppler 'WVS' 'IS2' descending

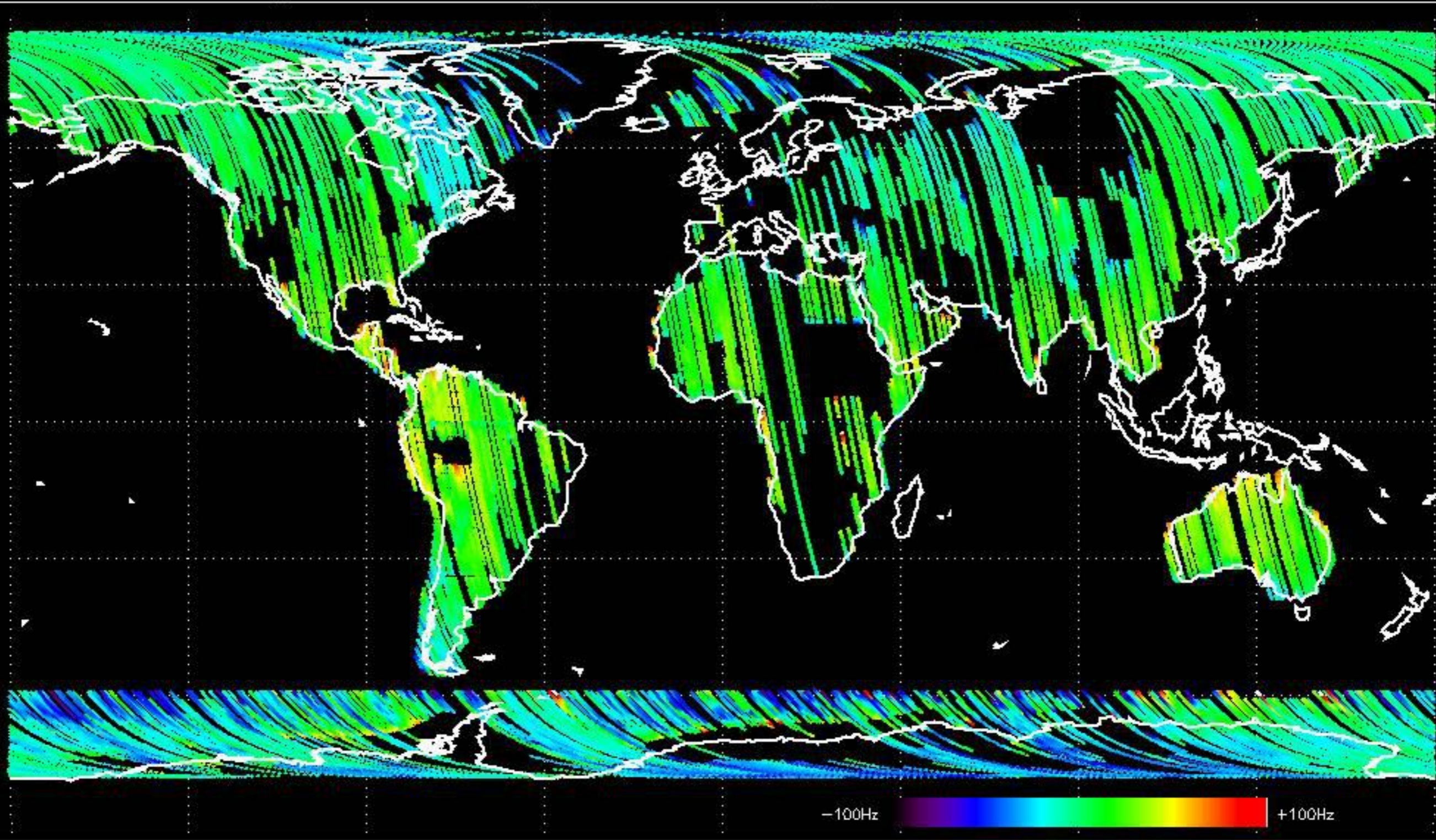


GM1 mode doppler

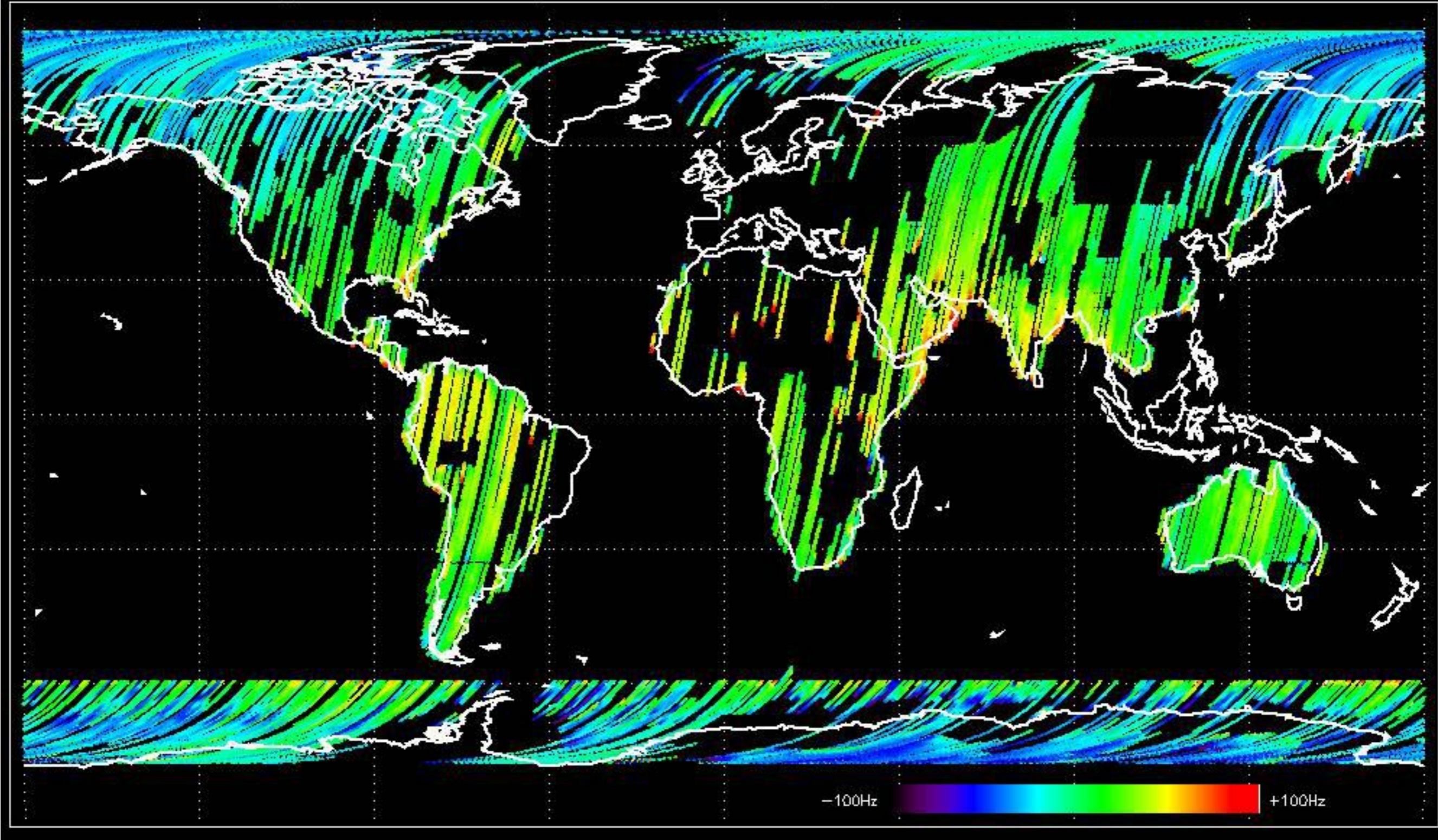




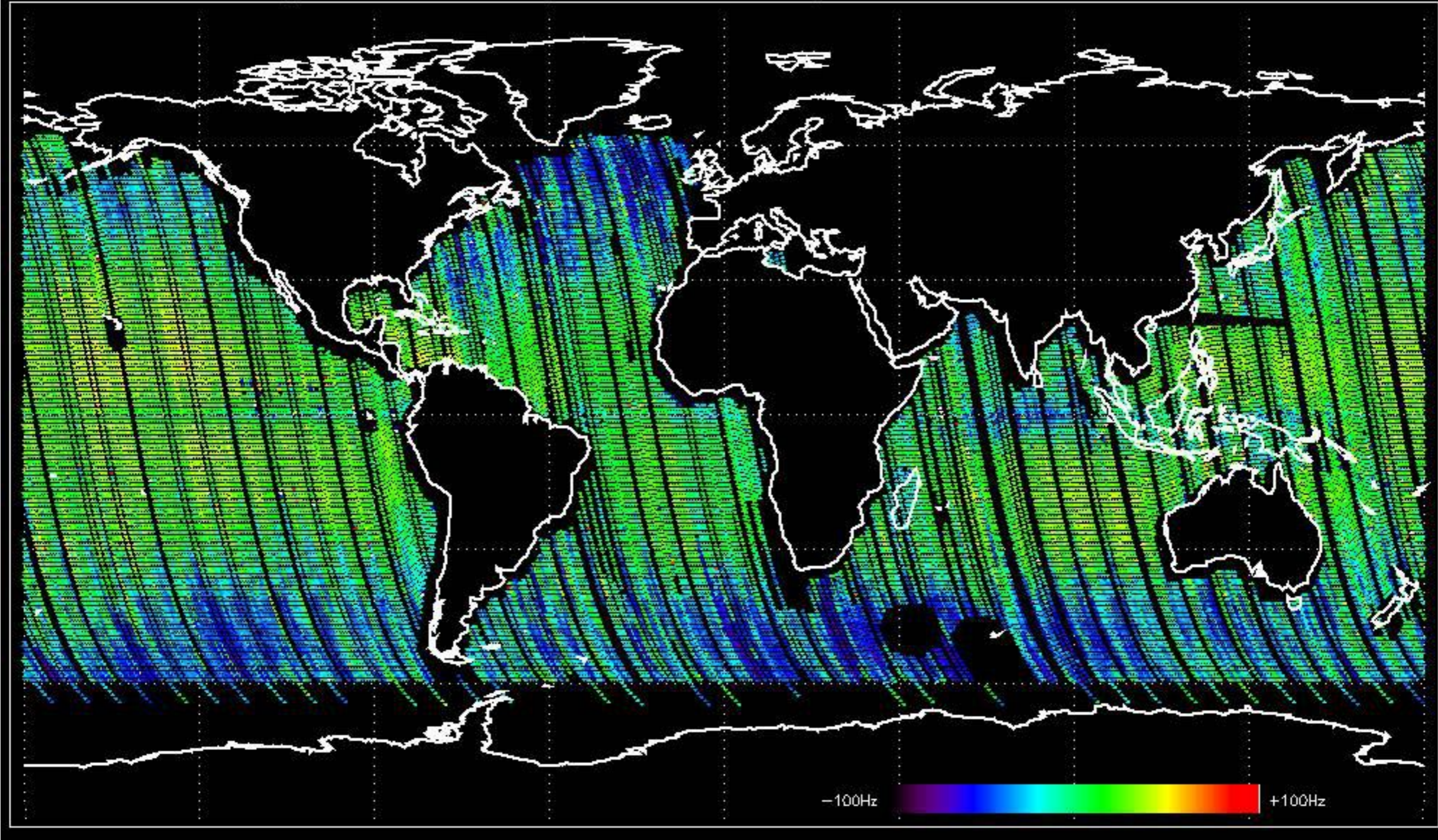
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -11.798993 Hz



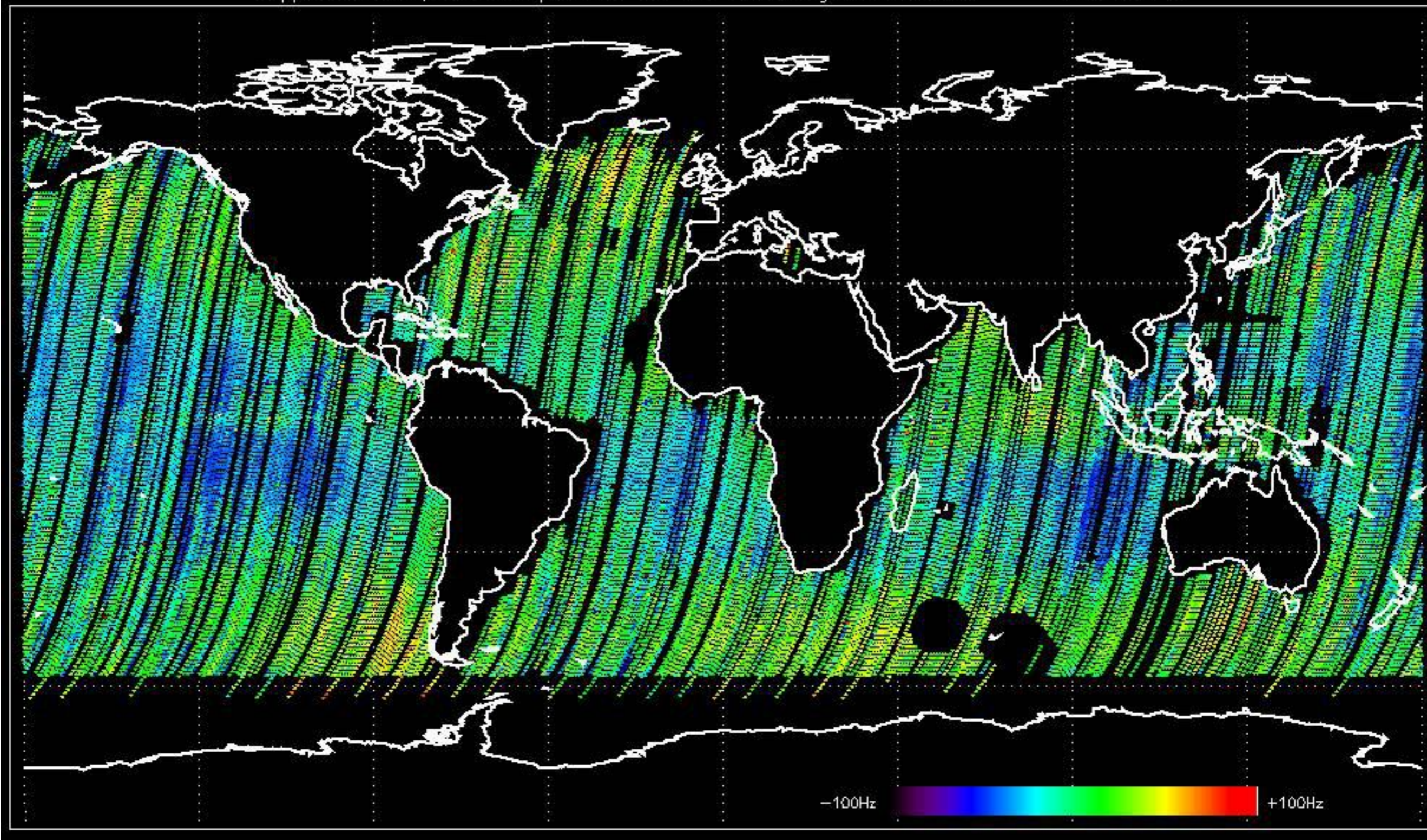
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.3177672 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.4473672 Hz

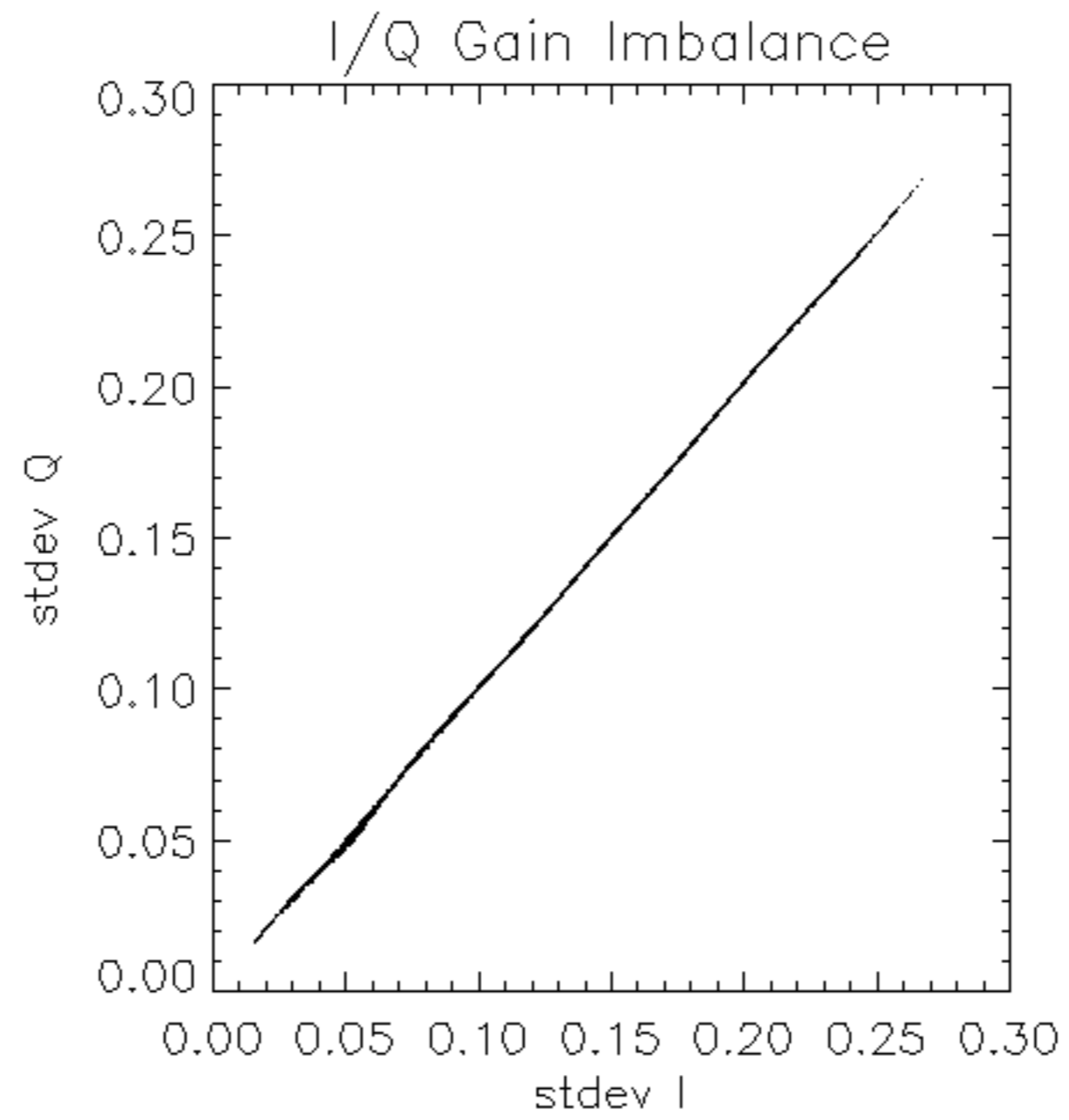


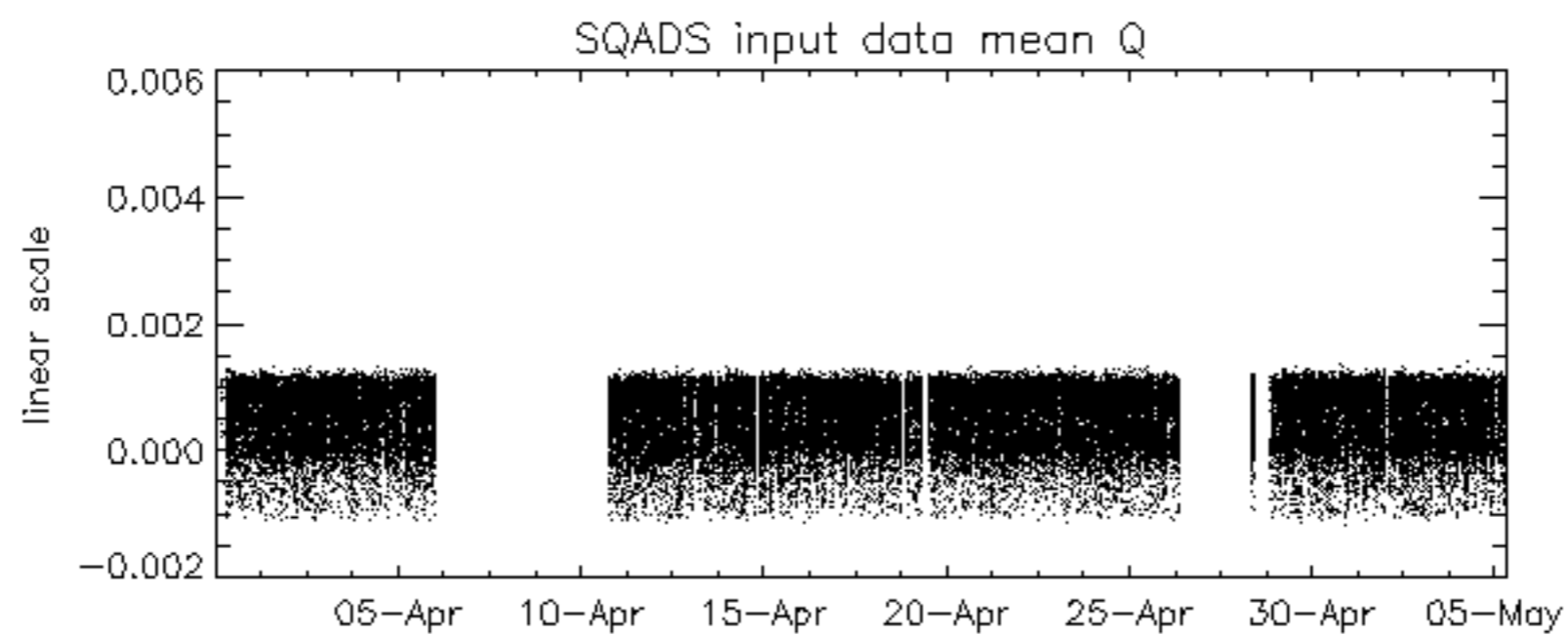
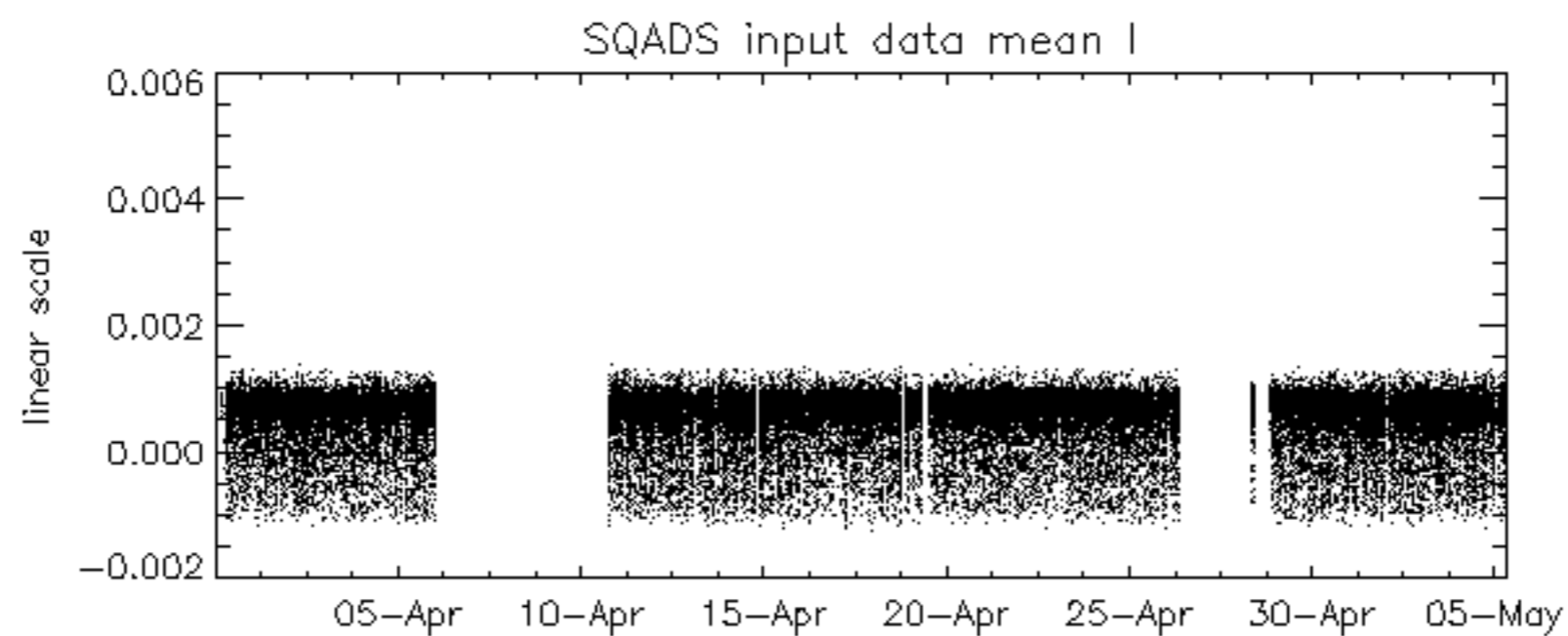
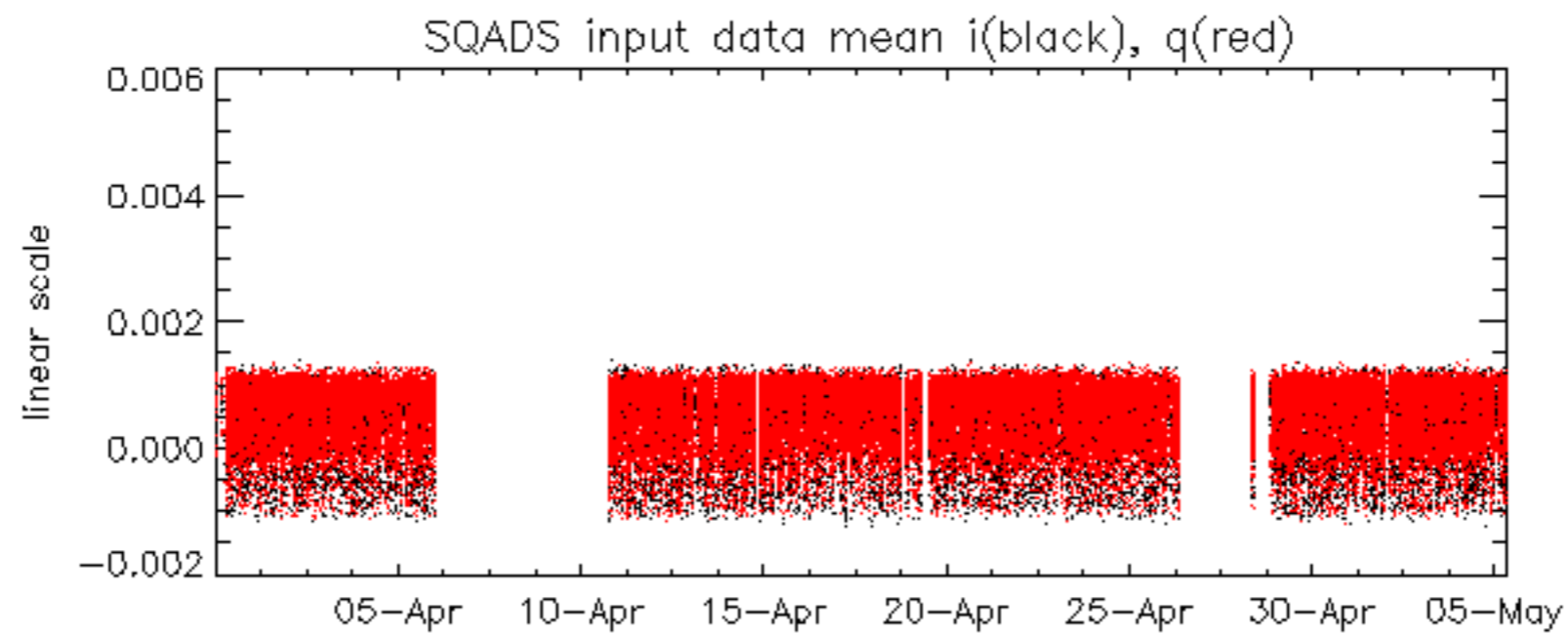
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.129432 Hz

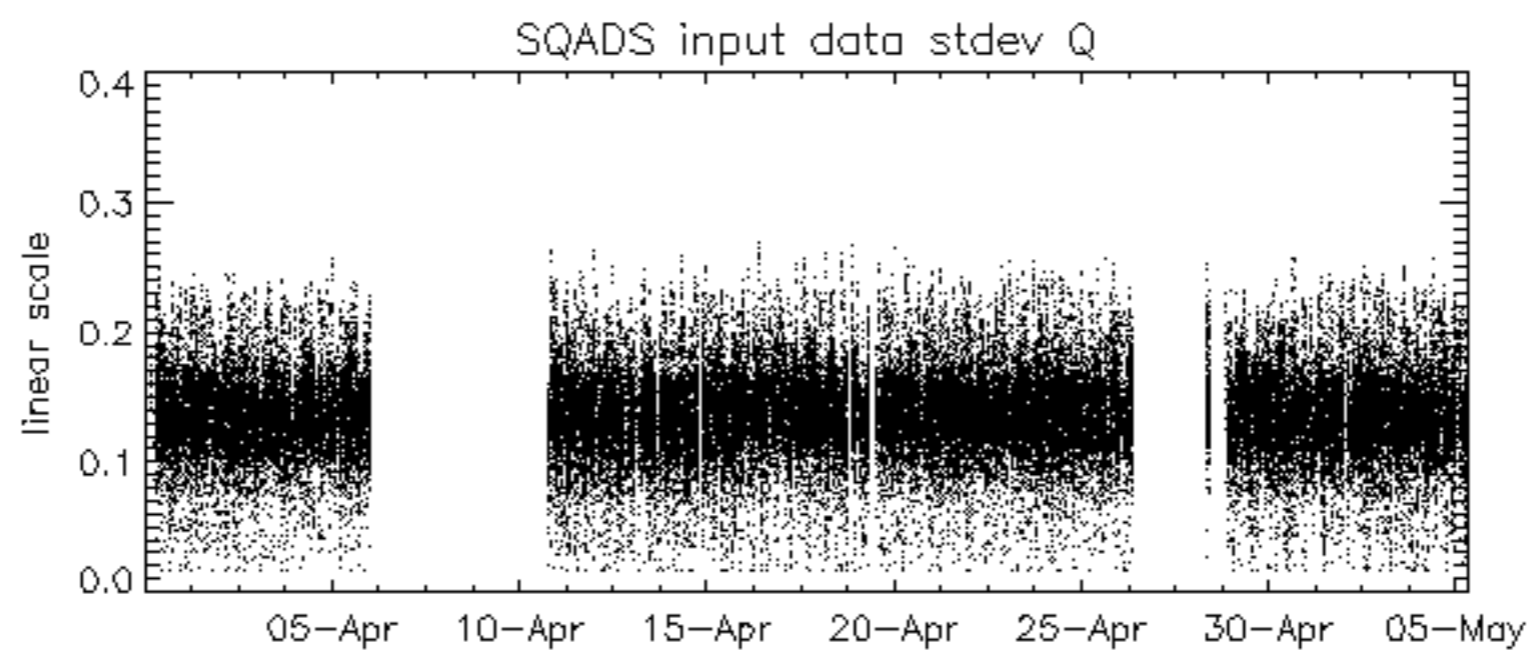
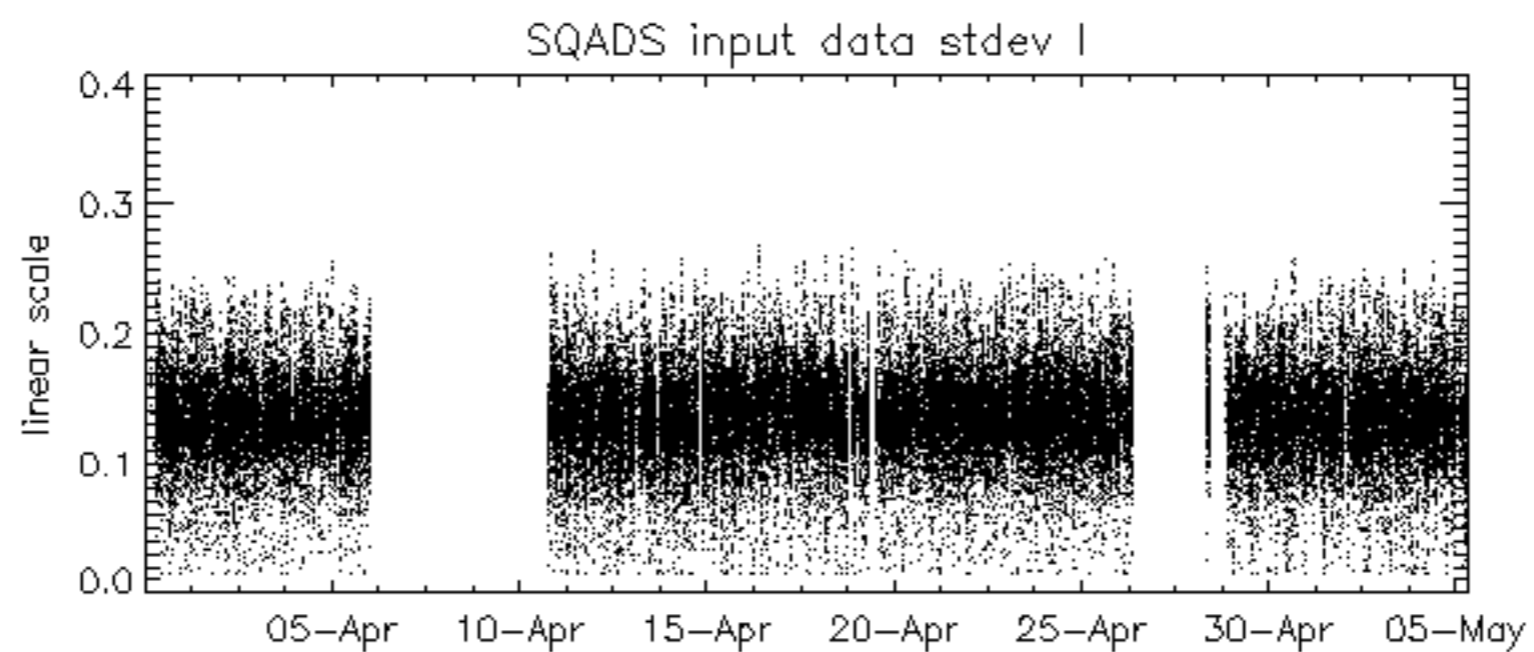
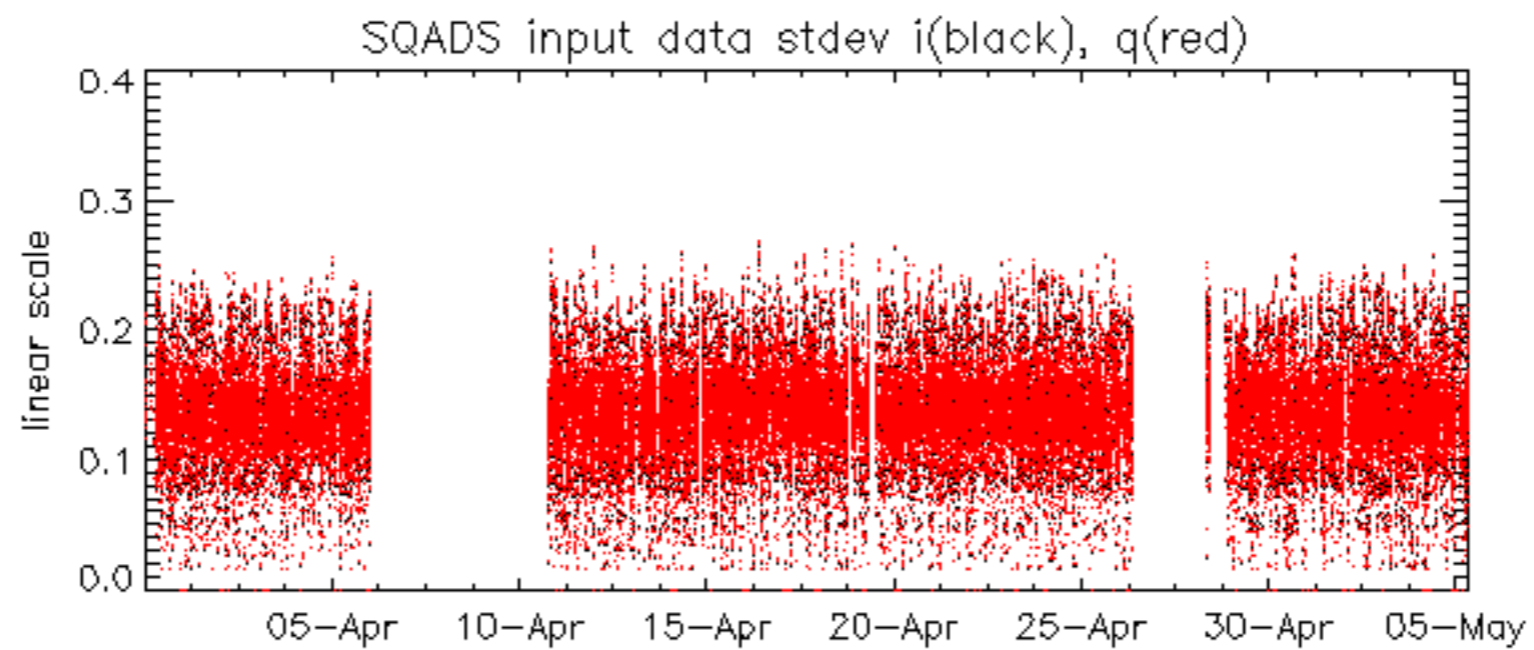


No anomalies observed on available MS products:

No anomalies observed.





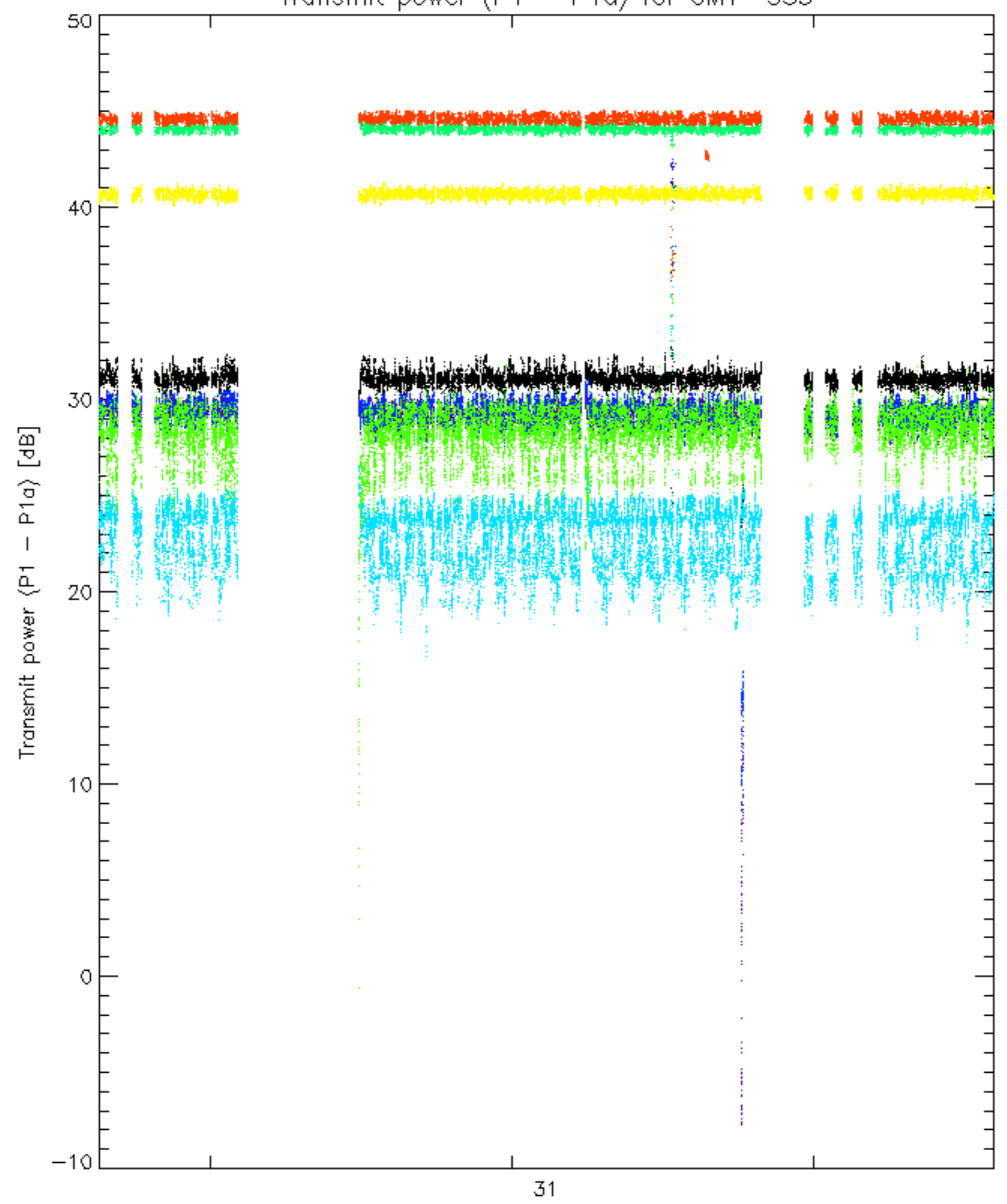


Summary of analysis for the last 3 days 2006050[345]

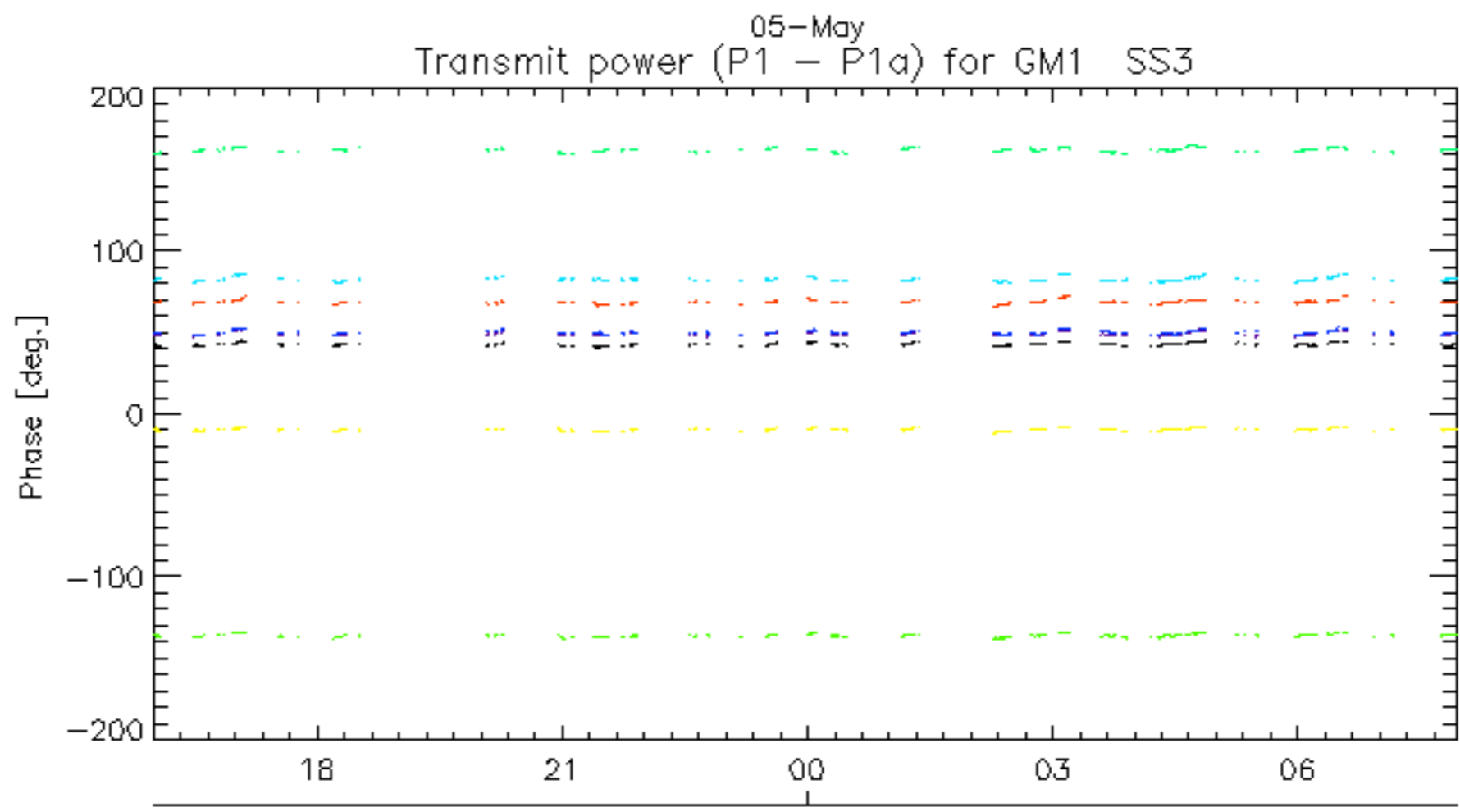
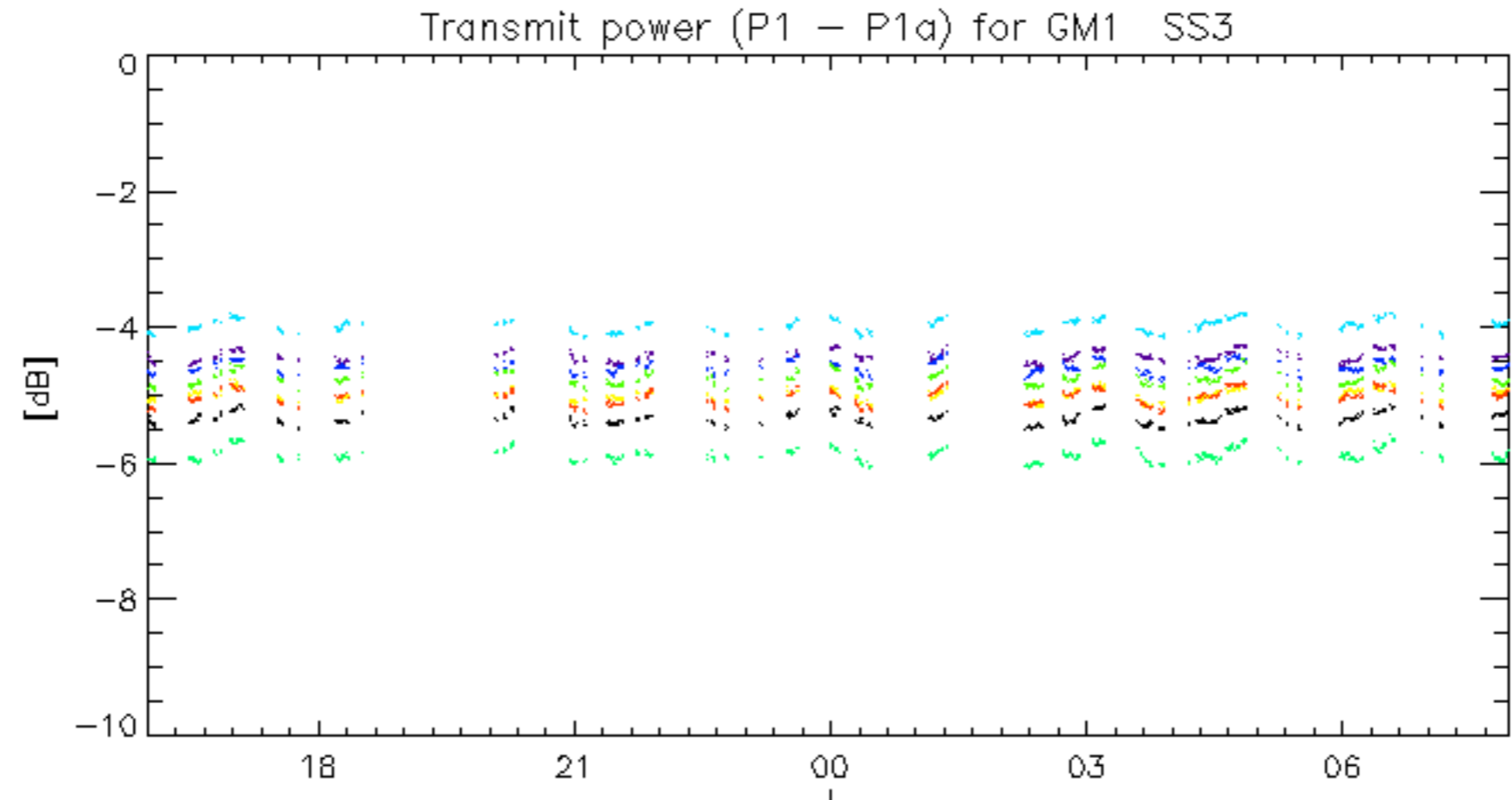
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060505_004234_000001742047_00245_21842_4113.N1	1	0
ASA_WSM_1PNPDE20060503_183927_000002262047_00228_21825_7761.N1	0	11
ASA_WSM_1PNPDE20060504_180901_000000862047_00242_21839_7952.N1	0	31
ASA_WSM_1PNPDE20060504_230834_000001222047_00245_21842_8010.N1	0	31

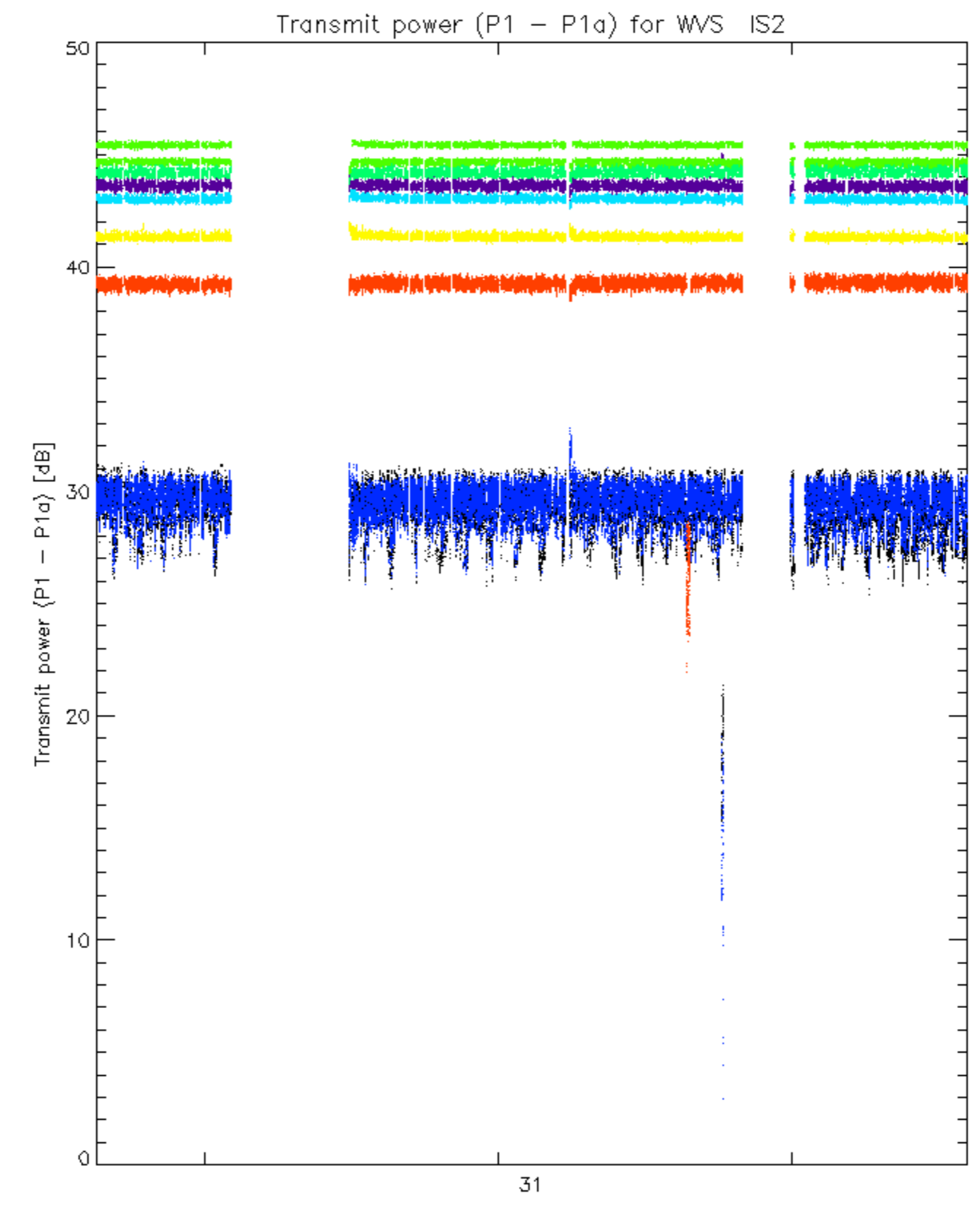
Transmit power (P1 - P1a) for GM1 SS3



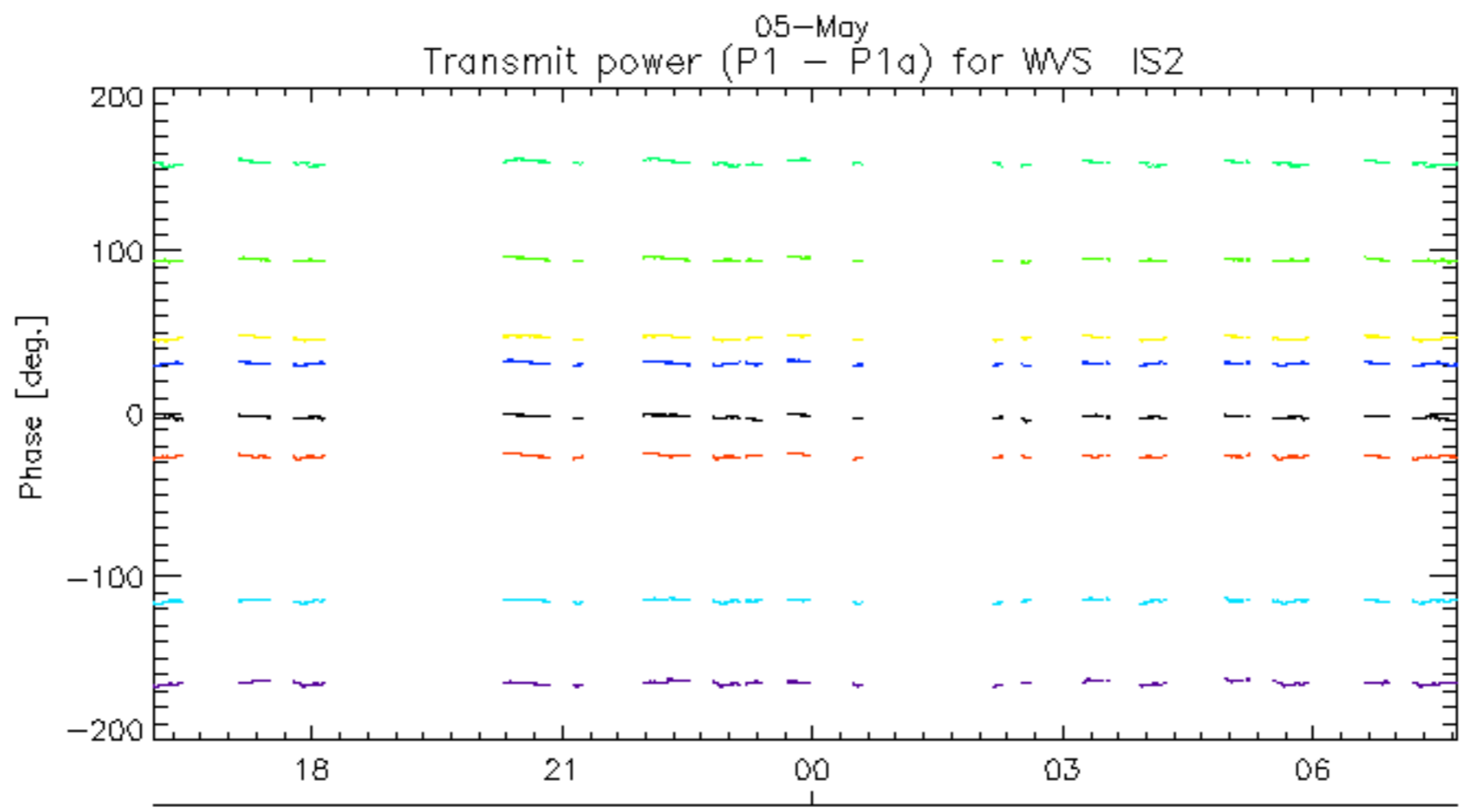
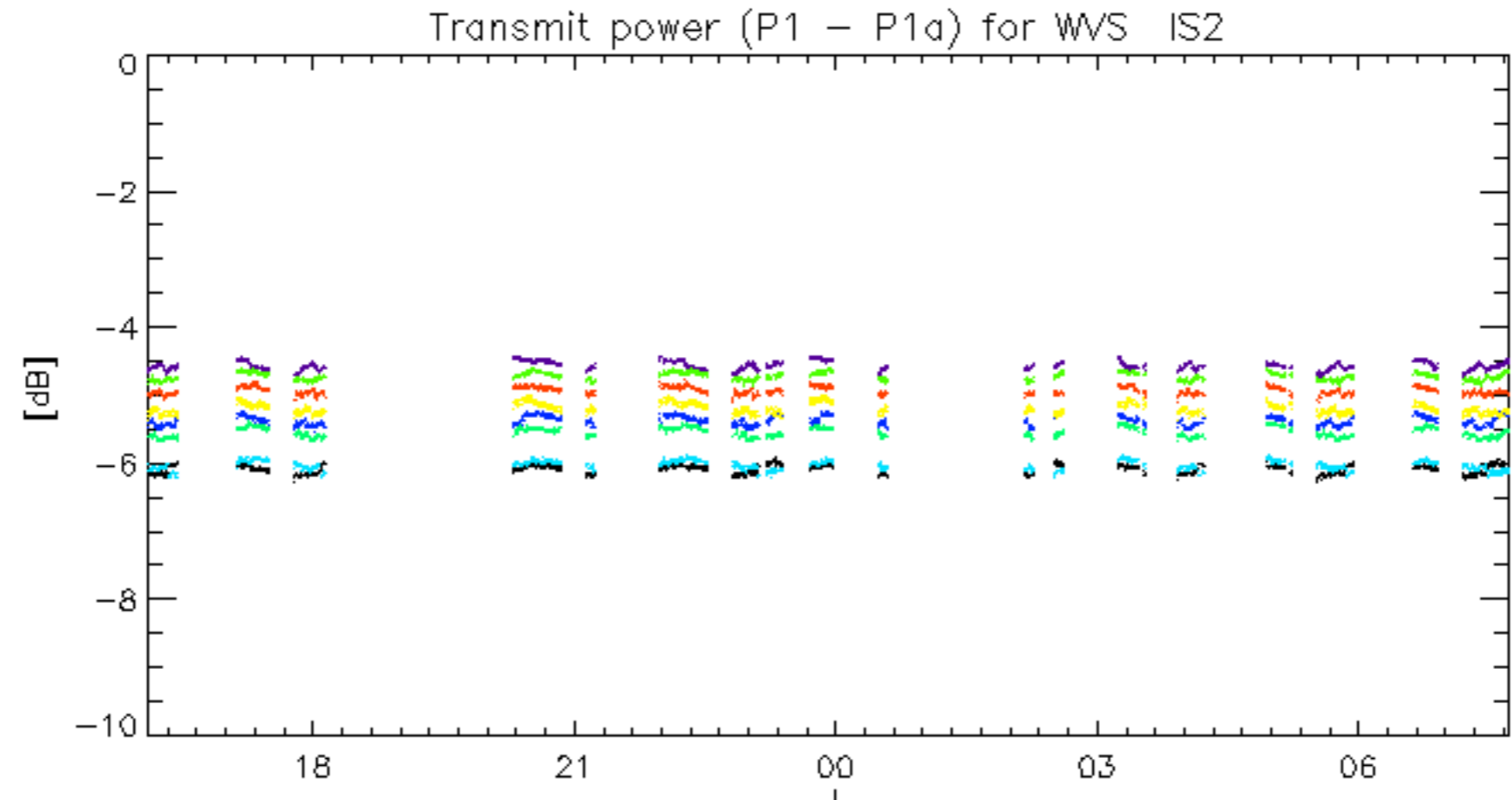
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.